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# INDIA RUBBER WORLD

CAOUTCHOUC  
HEVEA BRASILIENSIS  
GUTTA-PERCHA  
DIPLOPODUS GUTTA

Edited by HENRY C. PEARSON—Offices, No. 150 Nassau Street, NEW YORK.

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SEPTEMBER 1, 1900.

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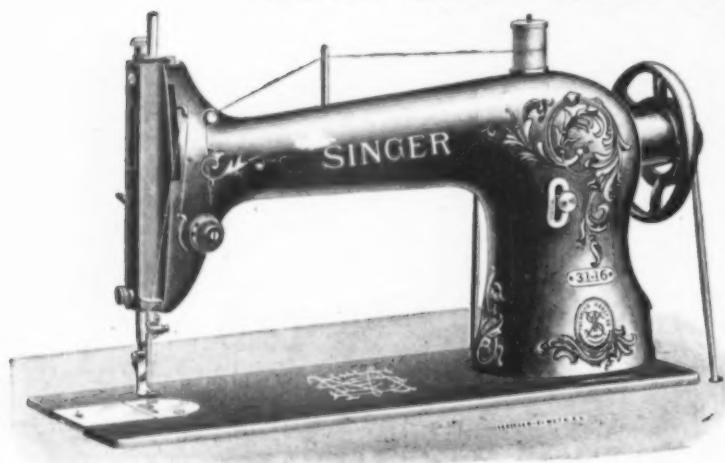
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## THE QUESTION OF RUBBER PRICES.

WE do not remember that any important cargo of Pará rubber has ever been lost at sea, but such a mishap is always within the range of possibility. It is pointed out in a circular from a Liverpool rubber importing firm that "the loss of a single Pará steamer with its cargo might prove highly disturbing" to the market. Not long ago there happened to be a 400 ton lot of rubber in Pará for which there was no apparent demand, and the uncertainty of how and when this might be placed upon the market, thereby unsettling prices, was a disturbing element on both sides of the Atlantic until a New York firm settled the difficulty by calling their agent to buy the rubber. But 400 tons would not make a heavy cargo from Pará; it is not unusual for single shipments of 1000 tons or more to be made. There is no reason, of course, for the trade to become alarmed now over the possibility of losing so much valuable material at sea, and we have mentioned the matter only as illustrating the narrow margin between supply and demand of an article so necessary to the industrial world as rubber.

The same Liverpool firm asserts that the world's total stock of all kinds of rubber on June 30—estimated at 7869 tons—was barely two months' supply. Yet the world's total stock twelve months before was only 4871 tons, and it may at any time decline again from the larger figure quoted. At one time during the last crop year the total visible supply of Pará rubber in the world amounted to only 8 per cent. of the total production for that year, and at one time during the preceding year the supply was less than 6 per cent. of the year's production. These figures have a bearing upon the suggestion made by the firm referred to, that manufacturers might in some measure provide against sudden and marked fluctuations in crude rubber prices by creating an "invisible" supply, as distinguished from the "visible" supply reported in statistical returns. The chief trouble about this suggestion is that it fails to include a hint as to where or how rubber is to be obtained for this "invisible" supply. If all the rubber stocks in the world on June 30 had been divided up among the factories, instead of remaining in dealers' hands, there would have been only about 20 or 25 tons for each, on an average, if so much, and 20 tons of rubber is a small quantity compared with the yearly requirements of the average factory.

What has been called the "hand to mouth" policy of rubber manufacturers—buying day by day only what they are forced to buy—has resulted from their belief that this course would tend to keep prices down, when it has not resulted from inability to buy more at a time, on account of the high cost. Certain it is that any general buying to-day for the creation of heavier factory stocks would send up prices to as high, or higher, figures than the trade has yet known. It would thus seem, after all, that no better course is open to the rubber manufacturer than to buy his raw material as it is needed, though it might be better, if there is probable need for two tons of rubber, to order both at once than to order half the amount in the morning

and the other half in the afternoon, in the hope of a decline in prices meanwhile.

#### RUBBER AND THE BICYCLE TRADE.

THE production of bicycle tires is a matter of much less concern to the rubber industry in America than it was only a few years ago, when nearly every manufacturer of mechanical rubber goods welcomed the sudden demand for tires as a possible means of relief from a condition in their trade bordering upon stagnation. But before any indication appeared of a declining demand for tires, the rubber men began to drop that line, because, for reasons which need not be rehearsed again, most tire producers found the business an undesirable, if not an unprofitable, one. Now that there has been an unmistakable falling off in the sale of bicycles, we may expect the number of tire manufacturers to be still further reduced.

No definite estimate of the amount of rubber used in bicycle tires has ever been formed, but there was a period when any increase in the consumption of rubber or an advance in its price was attributed to the growing demand from the bicycle trade. Yet the consumption of rubber has continued to increase, and prices to advance, while the tire production, instead of growing proportionately, is now plainly decreasing. The total imports of India-rubber into the United States, by fiscal years, and the average import price per pound of all grades, has been as follows, beginning at a period antedating the development of the bicycle trade on a large scale:

YEARS.	Imports (Pounds).	Average Value.
In 1890-91.....	33,712,089	53 cents.
In 1891-92.....	39,976,205	49 "
In 1892-93.....	41,547,680	43 "
In 1893-94.....	33,757,783	44 "
In 1894-95.....	39,741,607	46 "
In 1895-96.....	36,774,460	45 "
In 1896-97.....	35,574,449	49 "
In 1897-98.....	46,055,497	55 "
In 1898-99.....	51,063,066	62 "
In 1899-00.....	49,377,138	63 "

There is no indication that bicycling "has played out," except in the matter of racing and among those ultra fashionable people with whom it was never more than a "fad." On the other hand, the number of people who use bicycles regularly as a matter of convenience, or as a cheap means of recreation—including so many people unable to keep a horse or carriage—must be greater every year. The sale of bicycles, in the beginning, went up by leaps and bounds, until the whole country was supplied with them, after which there had to be a stop in the rate of growth of the business. During the "boom" too many wheels were made, and there doubtless yet remain surplus stocks to be sold, the influence of which naturally has been to reduce production. It likewise has led to a sacrifice in prices which has forced not a few manufacturers from the field.

One other cause of the decrease in the number of wheels sold has been the standardizing of models to such an extent that even the cycling enthusiast no longer demands a new mount every year, but each wheel sold is likely to remain in use so long as it remains serviceable—the same as

any other machine. Not only is the manufacture of new wheels interfered with, therefore, until surplus stocks are sold, but sales are interfered with until wheels now in use are worn out. Still another cause of decreased demand relates to the export trade, which, on account of bad methods, has not been kept up to the volume of two or three years ago.

Ultimately we may expect to see the bicycle trade as a whole on a sounder basis than ever before, with a legitimate demand increasing gradually year by year, the business in the hands of competent people, and prices on a stable level that will yield a profit to manufacturers and dealers, while still within the reach of a majority of the people. The evolution to this end will not be unlike that seen in the sewing machine trade during the period when the number of manufacturers declined from something like four hundred to the comparatively few firms who to-day control the best features in the production of these important articles, and derive a profit from their sale.

When the bicycle trade has reached this desirable condition, there will be a steady demand for good, bad, and indifferent tires, as there is to-day for hats or shoes of innumerable grades, and there will be a profit for the rubber manufacturer who knows how to take advantage of his opportunity, just as there is a profit for the hatter who knows his business. That the rubber trade has not suffered from the passing of the bicycle tire as its most conspicuous product is evident from the fact that there are more rubber mills to-day than ever before; they are using more rubber and making more goods than ever in spite of high prices of raw material; and we should be surprised if they are not making more money, as well.

#### IMPORTANCE OF THE CABLE INTEREST.

TENDERS for the manufacture and laying in the Pacific ocean of 8272 nautical miles of telegraph cable were invited during the past month by the Pacific Cable committee in behalf of the British government and the governments of Canada, New South Wales, Victoria, New Zealand, and Queensland. This fact alone does not assure the building of a Pacific cable, but it does mark an advance in that direction since 1894, when tenders were made by six British cable making companies on somewhat similar specifications. At that time the commercial importance of the Pacific ocean was perhaps more lightly estimated than at present, besides which the project of a trans-Pacific cable was actively opposed by the powerful Eastern Extension company, who still monopolize cable communication with the far east. The fact that new tenders have been invited at least indicates that the opposition of the existing monopoly has not been strong enough to control the situation. Moreover, weight should be given to the fact that the great cable manufacturers have continued to give close attention to the subject, to a degree which must presuppose their belief in the practicability of a trans-Pacific cable and the probability of its construction.

It is not a sufficient objection to a Pacific cable that

means of telegraphic communication with the far east already exist. Elsewhere in the world new cables are being laid all the while, not because no facilities have existed hitherto, but because better facilities are wanted, as witness the new transatlantic cable of the Commercial company, completed during the past month. Again, every important commercial nation is awakening to the desirability of having its own submarine telegraph lines, as it has its own shipping lines, as a means of commercial expansion, to say nothing of political reasons. The new German cable now being laid to America perhaps is not absolutely necessary, in view of existing accommodations, but Germany has no direct line across the Atlantic, and Germany wants a line. Similarly Germany wants cable lines to her African possessions, and England wants more direct communication with South Africa, and France is planning lines to her more important colonies everywhere, while the project of a cable from the United States to our new possessions in the Pacific has by no means been lost sight of. A German statistician estimates that the cable projects now being developed will require over 17,000,000 pounds of good Gutta-percha, and while all this vast quantity will not be required at once, it is certain to be required so rapidly as to prevent the possibility of an early decline in price.

The claim which this subject has upon the interest of the India-rubber trade rests upon the fact that some of these enterprises will call for the consumption of India-rubber, and possibly to such an extent as shall have a serious bearing upon the cost to every branch of the rubber manufacture of the raw rubber it requires.

#### AS TO CERTAIN INVESTMENTS.

MANY requests reach us for advice in regard to investing in the shares of those rubber manufacturing companies in which the public have had an opportunity to acquire an interest. We must always decline to give such advice, and for the same reason for which we should not care to express opinions with regard to any other securities on the market. The man who contemplates buying stocks of railways, banks, industrials, or what not, and who, on account of his lack of knowledge of the business involved, feels the need of advice, should seek it from some one whom he knows to be qualified to deal with his particular case.

There is one point, however, upon which we feel that something may be said here. Such inquiries as reach us appear to be based upon the idea that the reports of trading on the Stock Exchange are an index to the condition of the industries represented. The truth is that the prices of an "industrial" security have no more relation to the real condition of the business back of it than Charles Goodyear's invention has to the troubles in China. The shares of a manufacturing corporation are quoted at high or low prices, but this does not mean, necessarily, that the business of making and selling goods in which the corporation is engaged is either better or worse. The fluctuations are more apt to be due to the work of the "profes-

sional trader," who, so long as he can control the market, guides the course of prices for his own profit.

There is a class of investors who would rather buy stocks at 10 cents on the dollar than buy government bonds at any price, for the sake of the possible excitement of seeing them increase in value, and Wall Street is full of traps for this sort of speculative investor. It matters little to the manipulator of the market whether the trap is baited with sugar or rubber or rails; it matters just as little to him whether the rumors which he sets afloat have any relation to the truth regarding the business affected. Naturally the public can have no very clear knowledge of the condition of any given manufacturing business, and for this reason, as well as on account of the general unreliability of reports current in speculative circles, industrial securities may at times be found rated at less than their intrinsic value, based upon earning capacity. It was a long time before the public learned to appraise railway securities at their true worth, and all the newer classes of stocks must undergo the same course of becoming known.

#### SCIENTISTS IN A BAD BUSINESS.

THE revelations following the collapse of Mr. Hooley's gigantic company promoting schemes in London a year or two ago—the largest of which had a connection with the India-rubber industry—were anything but flattering to certain titled persons in the United Kingdom who had allowed the use of their names as a means of attracting investors without regard to whether or not the schemes were meritorious. In other words, it was charged openly that large sums of money were paid for the use of titled names at the head of prospectuses, with the idea that they would lend confidence to the public in the matter of buying shares in companies of whose business the public was necessarily ignorant. There are impecunious noblemen of course, and, under social conditions which forbid them to work for a living, it is not surprising that some of them should have yielded to the tempter in the shape of crafty promoters ready to pay for the indorsement of a title—a profitable business for the promoter until the public learned to distrust such indorsements.

We do not remember, however, to have seen any published criticism of the indorsement of certain schemes of doubtful merit by another class of men, also the possessors of celebrated names, who have deserved even more censure than the traffickers in the prestige of noble rank or title. The news comes from England of the collapse of the company capitalized some three years ago at \$1,000,000, for acquiring and working the Sérullas patents for manufacturing Gutta-percha from leaves. The company's prospectus was, of course, adorned with some distinguished names, headed by that of a former British ambassador to great courts. But what doubtless proved more effective in this case was the apparent indorsement of the scheme by two notable men of science—one probably the most distinguished of his class in the kingdom. It is true that the testimonials signed by these professors related only to the quality of the Gutta-percha produced by the new process,



which had been brought before them for analysis. But so adroitly were these professional names used by the promoters that the public might well have supposed their indorsement to extend to the whole prospectus—its promise of annual profits of 25 per cent. and all.

It does not appear that the whole of the capital of the Gutta-percha company was subscribed, which was fortunate for the public, since the total receipts of the company for the first two years were only \$70, to say nothing of actual losses incurred. But this fortunate circumstance was in no sense due to the distinguished scientists, but happened rather in spite of their efforts in behalf of the company. A man of scientific distinction may be as badly in need of money as a duke or an earl, but the mere fact of such distinction points to his capacity for earning money by other than discreditable means, besides which the whole tendency of the scientific life should be to restrain its devotees from lending their indorsement to anything but what appears to them absolutely true.

#### LETTERS TO THE EDITOR.

##### PLANTING RUBBER IN THE AMAZON VALLEY.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Having lived on the Amazon river since I was six years old, and having been interested in India-rubber, I may be able to give you some better information on this subject than the average passing traveler through this country. The rubber trees in the natural forests here are being overworked and killed. There are thousands left, of course, but they are in regions at the headwaters of the rivers (I speak here only of the states of Amazonas and Pará), where wild Indians and malaria abound, and it may be said to be impossible to penetrate the country or remain in it for any length of time. The supply of rubber must therefore decrease before very long. In view of this fact I have planted on my farm, seven miles south of Santarem, 20,000 Pará rubber trees, a few of which are sixteen years old, and the rest from one to eight years.

The Pará rubber tree requires to be twelve to fourteen years old to be worked to advantage. Last year I cut my trees for the first time. The yield was small, but as the rubber tree has to become habituated, or accustomed, like a milk cow, to let the milk flow, I did not feel discouraged. A few days ago I started my rubber cutter to work again, and expect something better this year. The governor of Pará, Dr. Paes de Carvalho, seeing the necessity for cultivating rubber, has had a law passed for paying a premium of 25 cents for each tree planted.

I obtained some seeds of the manicoba or Ceará rubber, from the state of Ceará, and have 2000 plants growing from seeds planted in January. Some of them are ten feet high. They require five years to attain cutting size. The tree is soft and pithy, with wide leaves. The bark is ropy, and contains more milk than the Pará rubber tree. For these reasons the idea has occurred to me of grinding up the plants and extracting the rubber. The seed can be obtained in large quantities, for the plants seed the first year. If the grinding scheme proves a success, there ought to be a fortune in it. The manicoba rubber used to be worked by scraping the tree and, some days later, peeling off the rubber in flakes. By renewing the scars the milk would flow again, and the process could be repeated indefinitely. But now the trees are worked the same as Pará rubber—tapping, collecting the milk in cups, and smoking it—and the product is of a finer quality.

The city of Santarem is located near the mouth of the Tapajos river, in sight of the Amazon, about 500 miles above Pará. I shall be pleased to afford any information in my power in regard to the cultivation of India-rubber in the Amazon valley, and should, in turn, be pleased to learn anything bearing upon the subject of obtaining rubber by grinding up young plants.

DAVID B. RIKER.

Santarem, Estado Pará, Brazil, July 23, 1900.

##### RUBBER WANTED FOR PNEUMATIC TUBE CARRIERS.

TO THE EDITOR OF THE INDIA RUBBER WORLD: It has been suggested to us by a member of the rubber trade that we might be able to use rubber treads, or rather, vulcanized rubber treads, for wheels of carriers used in our pneumatic tube systems. The wheels we now use are dropped forged steel and have been very satisfactory, but we desire to economize our wear and tear account, of course, and also to prevent, as much as possible, the noise of the steel wheels in traveling through the tubes.

The wheels are  $4\frac{1}{2}$ " in diameter and are about  $\frac{3}{4}$ " tread. There are ten wheels on a carrier, and the carrier weighs, loaded, 100 pounds, and is propelled by compressed air at a velocity of about 50 feet per second. The pipe in which the carriers travel is of the ordinary cast iron water pipe and comparatively smooth inside.

If we should conclude to use rubber treads for our wheels, it would be with the idea of reducing our wear and tear account. Undoubtedly it would be a very severe test, as the carrier receives an immense shock from going around the curves. Of course it would be desirable first to make a test by fitting up one carrier, and then, if it should work satisfactorily, we would place an order at once for 10,000 treads, and probably would use about 50,000 per year. Any suggestion that you may give us upon this matter will be greatly appreciated.

AMERICAN PNEUMATIC SERVICE CO.

R. W. MORRELL, General Manager Outside Department.

Boston, Mass., August 8, 1900.

##### A NEW GUTTA-PERCHA MADE FROM LEAVES.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Referring to your letter addressed to the editor of *The Straits Times*, under the date of April 17, we have much pleasure in sending you by post registered samples of our gutta extracted from Gutta-percha leaves. We sell this gutta under the name of "Kwang Joo Guan" as our trade mark, and you will find our gutta to be the most perfect article imaginable. Sixty-five tons of leaves only yield one ton of gutta, and as the leaves are not always to be had in sufficient quantities, we could not, in consideration of contracts running with Europe, for the present bind ourselves to deliver to you more than half a ton a month. Price, United States gold, \$2.85 up to \$3 per English pound, according to the price of leaves. Our agents in New York are Messrs. R. Brauss & Co., Nos. 80-82 Pine street. Yours faithfully,

H. BRAUSS & CO.

Singapore, June 1, 1900.

##### EXCITEMENT AT ATLANTIC CITY.

TO THE EDITOR OF THE INDIA RUBBER WORLD: On August 9, with the thermometer at 94°, a young lady deliberately sat on the board walk, removed her shoes, then her stockings, turned the stockings inside out, put them on again, and then her shoes. What ailed her? Her feet were hot, and she turned the hose on them.

Baltimore, Md., August 10, 1900.

C. D. C.

RHEA RUBBER.—Our German contemporary, *Gummi-Zeitung*, mentions the effort to float an American company to exploit the Cordner patents, and adds this brief comment: *Scheint wieder ein echt Amerikanischer Humbug zu sein.*



## INDIA-RUBBER AT THE PARIS EXPOSITION.

*Special Correspondence of The India Rubber World.*

## SECOND LETTER.

Important Exhibits by two Russian Companies—Belgium—Rubber from Liberia—The Insulated Wire Industry—Fine Exhibit from Italy—Minor Displays from Other Countries.

**T**O pass to Russia, it may be said that, though the Moscow manufacturers were absent, the show made by the two leading Russian rubber firms affords a very good indication of the extent to which the trade has taken root in the land of the czar. To begin with the Russian-American India Rubber Co., of St. Petersburg, quite a new departure—or, indeed, several new departures—in the way of attracting public attention must be credited to this firm. For one thing, the exhibits have a whole building to themselves. This pavilion, built outside the machinery section, is a domed structure resembling a Byzantine sacred edifice. In the interior, which is tastefully decorated, are to be seen numerous samples of the firm's products, a reproduction of a rubber gatherer's camp and operations in the Amazonian forests, and a beautifully constructed model of the ground floor of the rubber shoe factory, showing the washing, mixing, calendering, etc., machinery as well as the vulcanizing stoves and varnishing rooms—in fact, all the processes through which the rubber goes until it arrives in the store and packing rooms. This model, constructed to scale, occupies a table reaching nearly from side to side of the pavilion, while adjoining tables contain models of the managers' and workmen's houses and other buildings connected with the works. The representative of the company asserts that the company are the largest general manufacturers of rubber goods in the world, though in the matter of rubber footwear alone there is one larger American firm. The number of hands employed is 5000, and their business is confined to Russia and Germany, and to the eastern markets, no business being done with other European countries. The large rectangular block of cellular rubber exhibited is said to be the only article present which is not manufactured by any other firm; it is patented, and is sold largely in the United States for use as a bath sponge. To touch on one or two other articles, the few waterproofs shown are not at all comparable with those of England or France as regards general appearance, though, no doubt, they may answer the primary purpose of keeping off the rain. Mechanical goods, vulcanite articles, diving suits, surgical and toilet articles, rubber toys, and hollow painted balls are among the other exhibits, but there is nothing to call for special mention. This firm have the best collection of raw rubber in the exhibition, cases of the various qualities of African, Indian, and American samples being on view, all marked with their English names.

**T**HE large exhibit of the Russian-French Rubber Co., whose works are at Prowodnik, near Riga, is placed among the Russian industries in the Champ de Mars. It is constructed with a triumphal arch at each end, the structure being composed of a variety of rubber goods, together with rolls of linoleum. The upper part is adorned with rubber footwear, in quite the most attractive display of these goods in the exhibition, being of various colors—blue, green, yellow, and plush, and trimmed with fur. Of course, the climatic conditions in Russia differ considerably from what prevail in England, but

it is a moot point whether the languid interest which is taken by the English lady in the "golosh" would not be quickened if such showy-looking goods as these were placed before her eye in the shop windows. Two giant fur-topped boots, standing on guard, as it were, serve as a capital advertisement for this class of the company's goods. Almost all classes of rubber goods are on view, including vulcanite and asbestos. A complete diver's outfit of asbestos cloth, lined with red rubber, is somewhat of a novelty, as this material is usually associated with fire rather than water. Another diving outfit is made of canvas-covered grey rubber. Single and double-face bed sheeting is shown in a variety of colors not noticed elsewhere, and, from the exhibits of linoleum and oil-baizes, it is to be inferred that the firm do not confine their attention to rubber alone. The toys, playing balls, surgical goods, etc., present no feature of novelty, though an inspection of the red mechanical goods shows a great freedom from efflorescence of sulphur. The small show of garments does not impress us, nor are the India-rubber and Gutta-percha covered wires much in evidence, though their manufacture forms an important branch of the firm's multifarious operations.

**BELGIUM** is represented by the Colonial Rubber Société Anonyme, the new firm which has works at Gand and which has close business connection with works at Prouvy-Thiant, France, and Cologne, Germany. They were rather behind-hand with their exhibit, when we called, as all the goods were not in position by the middle of June. Hollow painted balls naturally formed a prominent item, while among the rubber mechanicals were to be seen hemp, cotton, and asbestos packings. The vulcanite goods struck us as about the most interesting part of the exhibits.

**I**N a special floor case devoted to the products of the republic of Liberia are to be seen mechanical goods made by the Birmingham and Leyland Rubber Co., of England, together with various samples of raw India-rubber and Gutta-percha. The exhibit appears to be due to the enterprise of the Liberian Rubber Syndicate, of Paris and London, with which the name of Mr. Meiter is connected. The syndicate appear to be working on scientific lines, samples of the rubber as formerly prepared by the natives being shown side by side with the product as now obtained by an improved process, by which it appears that much of the resinous matter is removed. We cannot, however, say anything definite on the matter, as no information is obtainable on the spot. A sample of odorless rubber prepared by a special process does not strike the eye as being of A1 quality, the exterior being black and resinous. The sample of Gutta-percha shown came upon us in the light of a surprise, as we were not aware that the genuine Gutta trees flourished in Africa. Quite possibly, however, the sample is what is known as "Bassia Gutta"—a body that has considerable resemblance to the genuine Gutta-percha.

**A**S for India-rubber and Gutta-percha in the insulated wire industry, it may be said that the best display is that made by the Société Industrielle des Téléphones, of France, and Pirelli & Co., of Milan, Italy. The first mentioned firm has a capital of 18,000,000 francs and has factories at Bezons (Seine et Oise),

for electric light, power, and telephone cables, and at Calais, where the submarine cable manufacture is carried on. Space does not permit of any detailed account of the numerous cables which were on view, and the details of which the writer had the advantage of obtaining from M. Pascal, one of the leading officials of the works. Naturally the subject which has attracted some attention in the pages of THE INDIA RUBBER WORLD cropped up in the course of discussion—we refer to the use of rubber for submarine work, in place of Gutta-percha—and it transpired that the firm are now conducting experiments with a material which, if successful, would render the employment of Gutta-percha for deep sea work quite superfluous. Although expressing himself in confident terms as to the results, M. Pascal was not disposed to enter into any details at present. Quite a feature of this, as well as of other cable firms, are the paper insulated telephone cables. For this purpose, paper seems to be rapidly superseding Gutta-percha, and the firm under notice are not only doing a large business in France, but also in England, where they are supplying their wires to English towns under the orders of the National Telephone Co. They are laid in pipes through which a current of air dried by passing through sulphuric acid is aspirated by means of a fan. The Atlantic cable from Brest to New York was the work of this company, and now that the French government has passed the special bill for the extension of the cable system, their cable works will be very busy for some time to come. Questioned on the matter of the span of life of vulcanized electric light cables, reply was made that they could point to some that were now quite sound after twenty years of working, the present installation in Paris of 2000 volts pressure being fourteen years old. In addition to their cable exhibits, it may be mentioned that this firm are showing rubber goods in three other places, one exhibit being confined to machine belting (both rubber and Balata), and another comprehensive exhibit of general rubber goods being placed among the French India-rubber and Gutta percha industries already treated of. Among these goods we notice waterproof garments, cycle and motor tires, shoe soles, rubber toys, papermakers' cylinders, carriage blocks, airbrake hose, and hat bags, while vulcanite acid pumps and accumulator cells, together with Gutta-percha buckets, funnels, etc., are among the other articles which show the varied and extensive nature of the operations carried on by this firm.

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THE Poszony Cable Works, of Pressburg, to give the town its German name, represent Hungary in the cable manufacture, but at the time of our visit the showcase was not completed, and there was no official present from whom any information could be gleaned. Some electric light vulcanized cables, as well as paper covered telephone wires, were, however, in position, and the samples of the raw rubber and compounds to illustrate the intermediate stages of the manufacture will no doubt prove interesting to visitors.

Another uncompleted exhibit was that of the India-rubber, Gutta-percha, and Telegraph Works Co., of Silvertown, whose stand struck us as hardly of a magnitude commensurate with the importance of the firm. The small show of rubber and Gutta-percha insulated cables on view was not supplemented by paper insulation, a branch of the manufacture which the firm presumably have not yet entered upon.

Geoffroy & Delore, of 28, Rue de Chasse, Clichy, have a large show of insulated cables, special interest attaching to those intended for explosion work in mines. These are stated to be insulated with natural rubber, and the labels they bear indicate a guarantee varying from 300 to 5000 megohms per kw.,

at 150° C., some having and some being without a protective lead covering.

A. Aboilard & Co., Société de Matériel Téléphonique, of 46, Avenue de Breteuil, Paris, show a variety of electrical instruments and fittings with which, however, we are not here concerned, and they also have some lead covered telephone cables insulated with paper.

The Allgemeine Elektrizitäts Gesellschaft, of Berlin, besides showing mica and vulcanite fittings, have a selection of concentric cables, and also paper covered telephone cables, but there is no attendant to give any details.

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WITH regard to the fine exhibit of Pirelli, of Milan and Spezia, whose position in the electricity section is not one of the best, it is hardly necessary to say much, as a special notice of the firm appeared in the June issue of THE INDIA RUBBER WORLD. Beyond a few mechanical goods, which, strictly speaking, should have been located elsewhere than in the electrical section, the firm confine their exhibits to goods connected with the electrical industry, the department of their manufacture which has made such great strides of late years and which shows every promise of attaining to even greater importance in the near future. A most interesting exhibit is a large model of their cable laying ship, *La città di Milano*. This ship was for many years the only one of its class owned outside of England, and it has done much useful service since 1886 in laying the submarine cables made at the company's works. Besides showing an assortment of the cables—submarine, telephonic, power, etc.,—which they manufacture, there is to be seen in action a dynamo and transformer supplying a current on the three phase system at a pressure of 25,000 volts to a set of 500 incandescent lamps mounted in series. Further description, however, of electrical plant would be outside our province. The officials at the exhibit courteously replied to the queries of the writer, who sought further information on the question of rubber versus paper for electric light cables. To the question, "Is paper insulation really as reliable as rubber for high pressure work?" the reply was that it would answer satisfactorily for continuous currents, but for alternating currents rubber was better. Among the special types of cables shown were those for torpedo work as supplied to the Greek government, those made for the Cairo tramways and a special type for use in tunnels, while the paper covered telephone cable for use in connection with dry air insulation is as prominent here as we have already seen it to be in the exhibits of other nations. The limitations of space preclude any further reference to this interesting exhibit, which cannot fail to make clear to those who may be ignorant of the fact, that the Italians are second to none in their ability to manufacture insulated cables of all descriptions. A word of tribute is due to the excellent show of vulcanite goods for electrical purposes made by this firm, included among which are some tubes made of a soft sort of vulcanite called fulacite and which is said to be used for crossing walls and sundry other special purposes.

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ADJOINING the Pirelli exhibit is the stand of Tedeschi, of Turin, another Italian firm engaged in the insulated wire industry, though not for marine purposes. This exhibit was still in a state of incompleteness, but the paper insulated telephone wires were noticeable among the goods in place.

Among the smaller exhibits in this section may be mentioned the wall case of samples of insulated wires of the Safety Insulated Wire and Cable Co., of New York, the wires being classified into army, navy, power, and intelligence.

The Cable Works A. Kreidler has a good show of bobbins of silk-covered wires, while the interesting exhibit of insulating materials made from mica and micanite shown by Meirowsky et Cie., of Cologne, may be mentioned, although not exactly within our subject.

To conclude with a glance at one or two scattered exhibits, the Canadian Rubber Co., of Montreal, have a stand in the Canadian pavilion, and show mechanicals and rubber footwear, the latter being all of the somber black type and not comparing with the Russian goods in attractiveness. There is also here an exhibit of rubber surgical goods by F. Gallebert. The L. E. Waterman Co., of New York, show not only the finished vulcanite pen of which they are the makers, but also, by means of various samples, make clear to the visitor the various intermediate stages which the raw rubber goes through before emerging as the finished pen.

At the Vincennes annex, where the locomotives and railway appliances are located, rubber is to be seen in certain of its applications, notably those recently described in THE INDIA RUBBER WORLD under the heading of "Rubber Requirements of British Railways." The term "Continental," instead of British, would be as applicable if an *addendum* was made referring to the strong rubber hosepipes, used on the Russian engines for conveying the liquid fuel from the tender tank to the firebox. Both the Westinghouse and the New York Air Brake companies had large exhibits of their brake systems, including the pumps and accessories for giving practical demonstrations. The latter firm, whose brake differs only in some details of construction from that of the Westinghouse company, is now, it would seem, rapidly extending its business in Europe.

As has been intimated already in this correspondence, the British rubber industry has but scant representation here. One exception to this statement may be made in the case of J. E. Hopkinson & Co., Limited, of the Para Rubber Mills, West Drayton, Middlesex, England. They exhibit a large variety of goods made from India-rubber, mostly in the mechanical lines, and especially railway supplies, machinery beltings, and tires.

Mention may be made also of the exhibits, in the electrical section, of W. T. Glover & Co., Limited, of Trafford Park, Manchester; the St. Helens Cable Co., Limited, of Warrington, Lancashire; and W. F. Dennis & Co., of 23 Billiter street, London, though the last named firm are not manufacturers.

#### AMERICAN RUBBER AND THE PARIS EXPOSITION.

AN editorial in *Engineering*, an important London journal, on the subject of India-rubber at the Paris Exposition, has this to say: "With regard to the show which is being made by the countries who are foremost in this manufacture, it has to be recorded that the American exhibits, which were to have been on a large scale, are absent. A year ago a good deal was heard in trade circles about the comprehensive character of the show which the United States firms were going to make, under the personal direction of the editor of THE INDIA RUBBER WORLD, but since then the scheme has been abandoned, primarily owing to the action of the 'rings' which have been formed in the trade in the States. Beyond one or two rubber insulated cables, the visitor will find nothing to give him an idea of the importance of the American rubber trade."

But the writer in *Engineering* might more properly have attributed the failure of the American rubber trade to exhibit at Paris to the same cause which he mentions in connection with a similar failure on the part of the English rubber trade. Under this head he says: "In 1878 the British firms were

able to show the world a good deal about the rubber manufacture, and the continental firms undoubtedly gained several hints which they were not slow to avail themselves of. As the trade is to-day, the British firms would have had very little of novelty to show if they had decided to enter the lists at Paris, and that fact may have had some weight in determining their course of action."

#### UNITED STATES CUSTOMS DECISIONS.

ACCORDING to a decision by the United States general appraisers of customs, the article in use in the rubber manufacture and known as "lithophone" or "litholone," was, at and prior to the passage of the existing tariff law, known commercially as "sulphide of zinc, white," or "white sulphide of zinc," and is dutiable as such under paragraph 57 of the tariff law at 1½ cents per pound, and is not dutiable as a "paint or pigment containing zinc, but not containing lead," under said paragraph, at 1 cent per pound. The decision was rendered in the matter of a protest made by Gabriel & Schall, of New York, importers of this material. The general appraisers declare that the sulphide of zinc sold for industrial uses is not the chemically pure article sold under this name in drug stores, but is a composition composed of about 30 per cent. chemically pure sulphide of zinc and about 70 per cent. of barytes. This sulphide of zinc is also known commercially by many proprietary names, among which names are "lithophone" or "litholone," "Charlton white," "Beckton white," "Griffith's white," "oleum white," and "permanent white."

CERTAIN goods imported by Moses Norris, of Baltimore, Md., having been assessed by the collector of customs as toys, dutiable at 35 per cent., an appeal was made to the United States general appraisers. Toys composed of rubber being specially excepted from the provision for toys in paragraph 418, act of 1897, the board held that toys composed wholly or in chief value of India-rubber are dutiable as manufactures of India-rubber, under paragraph 449 of said act, at 30 per cent. *ad valorem*. These toys were made in imitation of bagpipes, composed of a bag or pouch of rubber, with a hollow wooden mouthpiece. Testimony taken before the board showed that India-rubber composed 80 per cent. of the total value of the article.

#### "CRUDE RUBBER AND INGREDIENTS."

THE *Canadian Shoe and Leather Journal* (Toronto), in a recent issue, says of this new book:

"'Crude Rubber' is the name of a book which we have no hesitation in saying will be invaluable to every rubber manufacturer possessing it. It has to recommend it the name of Henry C. Pearson, editor of THE INDIA RUBBER WORLD, who is its author, which is of itself a sufficient guarantee as to its utility. Mr. Pearson has had a long connection with rubber manufacturers in his capacity as editor of the organ of the rubber trade of America, and has put in this book in succinct form the information he has gleaned. Every detail in the manufacture of rubber is given, from the time it is taken from the tree, and it is calculated in every way to fill a long-felt want among rubber manufacturers."

OF the forty factories represented in the German Rubber Goods Manufacturers' Association, sixteen employ under 100 hands each, sixteen employ between 100 and 500 hands, and eight employ over 500 each.



### "VISCOSE" IN THE UNITED STATES.

THE Cellulose Products Co., incorporated under Delaware laws December 9, 1899, with \$25,000 capital, has offices in the Equitable building, Wilmington, Del. Their object is the manufacture of a material to be known as "Viscose," for use in India-rubber compounds in the manufacture of a wide variety of goods, but a recent letter to THE INDIA RUBBER WORLD states that the company are not yet prepared to supply any data for publication. The officers are Samuel N. Trump, president; W. C. Spruance, Jr., secretary and treasurer; and A. D. Little, chemical director. Mr. Little, by the way, is an analytical and consulting chemist of Boston, and he has contributed lately to the *Technology Quarterly*, published at the Massachusetts Institute of Technology, a paper on progress in the chemistry of cellulose, pointing to the development of what has become known commercially in England as "Viscose." It appears that "when ordinary fibrous cellulose is first wet with a strong solution of caustic soda, and thereafter, while still wet, exposed to the vapor of bisulphide of carbon, a new compound is formed, known as cellulose sulpho-carbonate, which is soluble in water and extremely plastic, and which, moreover, may be readily decomposed with recovery of the original cellulose slightly modified in character and in the form impressed upon the plastic compound." This cellulose sulpho-carbonate is what is termed "Viscose," of which "in all about twenty-two different applications now claim attention." Besides the admixture of this substance with India-rubber for water-proofing textiles, some other uses proposed are the manufacture of artificial leather and artificial silk, and also of films suited for sausage casings and coverings for snuff, tobacco, etc. Mr. Pearson's book contains this:

"Viscose.—An English cellulose product that promises much as a substitute for vulcanite. It may be of any color or any degree of hardness. It has been used in connection with rubber experimentally with excellent results. As a friction for belting it is said to be excellent, whether or not the belt has the regulation rubber cover."

### SILICIA AND MAGNESIA IN RUBBER.

BY AN ENGLISH CONTRIBUTOR.

THERE are a certain number of chemicals which are continually being offered to the rubber manufacturer as just the thing he wants, and no amount of ill success

seems to deter the manufacturer or proprietor of such from attempting to foist their wares upon the trade. Perhaps it would be more correct to say the ill success of some does not deter others from entering the field. One such body that I have in mind is what is variously known as diatomaceous earth, kieselgahr, etc., and more recently, as "Atmoid." Now this substance, which is practically pure silica, no doubt has many good qualities, but it is more than doubtful if those qualities are seen to advantage in a rubber mixing. Quite fifteen years ago, I can recall its being pressed on the rubber trade, but beyond the mere statement that it was the thing to use I cannot remember that any concise arguments were put forward to show its usefulness. What I do know is that, despite considerable puffing, the rubber trade now as then continues to look at it, if not with actual suspicion, at any rate with decided indifference. No doubt it is unacted upon by acids, but then how many rubber goods come into contact with acid in the ordinary course of events? In some of its forms it certainly is an extremely light powder, but at the price at which

these varieties were offered it had no advantage over magnesia, which is equally light and which can be used to a considerable extent without hardening the rubber to an injurious extent, which is an effect produced by the silica. By magnesia, I mean the carbonate, not the calcined magnesia, which is an oxide and which can only be used with safety to the extent of 2 or 3 per cent. No doubt the hardening effect of the silica can be taken advantage of to some extent, but it would have been as well if those merchants who sought to sell it had known something of its properties and put

the rubber manufacturers on their guard against using too much. Anyhow I fail to see how it can be considered preferable to magnesia, unless it can be sold at about half the price.

London, August 9, 1900.

GRAPHITE.—An important use to which this material is being put nowadays is that of a facing for molds, the graphite being placed on the surface of a mold for the purpose of preventing adhesion of the metal to the sand of which the mold is composed. A little book on this subject will be supplied to any one interested by the Joseph Dixon Crucible Co., Jersey City, New Jersey.

ONE of the public schools at Woburn, Mass., may be renamed, taking the name Goodyear, in honor of the famous rubber inventor, who once occupied a house in that town.



RUBBER BELT CONVEYORS CARRYING GRAIN FROM ELEVATOR TO STEAMSHIP PIER.

[View in the Chesapeake and Ohio Railway Co.'s elevator at Newport News, Virginia, installed by the John S. Metcalf Co., grain elevator builders, Chicago. The various conveyor belts in this elevator are from 24 to 40 inches wide and aggregate in length 7935 feet, or 1.37 miles.]



## SOME PROBLEMS IN RUBBER PLANTING.

THE rubber planters are not agreed. There seem to be two ways of looking at every question that comes up. For example: Can the *Castilloa elastica* be cultivated as an annual crop? Our office was visited lately by a gentleman from the States who has business in Mexico, where the rubber planting question has interested him greatly. He has figured out a handsome possible profit from uprooting closely planted young trees, at twelve or eighteen months of age, and extracting all the *latex*, whether in root, trunk, or leaves. The process remains to be perfected, but this does not discourage him; his connection with a machinery building firm leads him to count confidently on an apparatus being produced for macerating the plants, after which the rubber can be separated by chemical treatment.

This treatment of rubber, instead of waiting for cultivated trees to mature, and extracting the milk in the usual way, was first seriously proposed, we believe, through THE INDIA RUBBER WORLD, since which many persons have addressed themselves earnestly to the problem. From one standpoint the plan appears feasible. Some French scientists have experimented with success in the extraction of rubber from the dried bark of African species, by combined mechanical and chemical treatment; why, then, should not the same be done with green rubber plants? But another visitor to our office on the same day, also fresh from Mexico, where he is planting rubber, strongly opposed the annual crop idea, for this reason: The lands in Mexico and Central America suited for planting the *Castilloa elastica* can be brought under cultivation in the sense in which this term is understood in the United States only at a great expense in clearing away the forest growth, removing stumps and roots, and fitting the lands for the plow. It is a comparatively easy matter to prepare small nursery beds, for sowing rubber seeds with a view to transplanting the plants at a tender age to their permanent location, which method of planting does not call for very close clearing of the land. But the annual crop plan would involve the preparation of large areas in the same manner, practically, as nursery beds are now prepared, and this would entail an expense which, to the mind of our second visitor, would render the cultivation unprofitable. At least, he believes that, with a smaller expense, a given amount of rubber may be produced, within a term of years, by the existing method of planting.

A matter which did concern our first visitor, however, was the quality of *latex* from year-old rubber plants, as compared with that from mature trees. While there is a lack of absolute data on this point, most authorities seem to consider the quality of rubber produced to be the same, whether from young or old plants.

The second of the two visitors mentioned is studying the best method of extracting rubber. He regards extensive cutting of the bark as unnecessary, and all cutting of the wood as injurious, and he is at work upon a novel idea for assisting nature in the discharge of the *latex* through the incisions, which he is not yet ready to make public. By the way, an earlier visitor to New York from Mexico was looking for a hardware manufacturer to make a rubber cutting tool on a new principle, with which it would be impossible for even the most careless native to injure the rubber tree.

Mr. Francis C. Nicholas, one of our contributors on the subject of rubber culture, persists that planting should be on for-

est lands, denuded of the native growth sufficient only to make room for the rubber. First, he assumes, from the occurrence in nature of a great number of forest species on a given area, that each species thrives better under such conditions than if the ground were covered by that species alone. On account of the difference in fertilization of the different species, Mr. Nicholson contends, nature places on an acre the number of rubber trees which can best be maintained on that area, while the same remains true of all the other species occupying the intermediate species, one not interfering with another. Ideal conditions, therefore, will be found by planting a limited number of rubber trees in a forest, instead of cutting down all other growths and covering the ground with rubber trees. Besides, the question of cost arises. Clearing the land is expensive, and Mr. Nicholas claims to have planted a certain number of trees, by his forestry method, at one-tenth of the cost of planting the same number in "orchards," involving the close clearing of the land which this method involves. No doubt, however, some of our readers will take issue with him, and this brings us back to the original thought, that the rubber planters are not agreed.

We have pointed out several times that it is a mistake to count upon all rubber trees yielding a product worth \$1 a pound. Some of the estimates made by promoters of planting companies doubtless have been formed without their giving much thought to this subject, but others have gone into the matter with an idea that *Castilloa* rubber can be produced that will bring more than the current prices for the best Central American rubbers. One letter to our office, from a Costa Rican company, says:

We wish to explain in a measure our position regarding the price of *Castilloa* rubber. Heretofore all rubber offered on the market from Central America has been gathered principally by native rubber hunters, who have taken no pains to deliver the rubber clean; hence the goods offered have been filled with sticks, leaves, gravel, and as much water as possible. Under cultivation, care should be taken that clean rubber is produced, and it should bring very close to the price of Pará rubber. In fact, a piece of rubber from our plantation has been presented to different rubber manufacturers, and they pronounce it as fine as any they have ever seen.

Without doubt every grade of rubber now known could be so prepared as to result in less loss in the factory from shrinkage, though it does not follow that every other grade could be brought up to the same price level as that of fine Pará, however careful the preparation. The following comparison may be of interest:

	Fine Pará.	Central Rubbers.
Assumed price per pound.....	\$1.00	\$0.65
Percentage of shrinkage.....	18	25
Cost of washed rubber per pound.....	1.22	.93

In the market it is usual for Central rubbers to bring about 65 per cent. as much as fine Pará. With the rate of shrinkage selected for comparison, the cost of washed rubber works out 93 per cent. of that of fine Pará. According to these figures, the manufacturer can as well afford to pay 76.2 cents a pound for Centrals with a rate of shrinkage of 25 per cent. as to pay \$1 for Pará rubber of good quality—provided, of course, the Central rubber will serve his purpose—and the trade may yet come to this way of thinking. If the rate of shrinkage of Centrals can be reduced to 18 per cent., for certain purposes they

would be worth, as a matter of fact, as much as Pará rubber. But the actual difference in merit of the two classes can never be overcome wholly, and the price of Pará rubber, for those purposes for which it alone is available, must continue, as in the past, to be governed by supply and demand, without regard to any other rubber in the market.

#### GATHERING CULTIVATED RUBBER IN ASSAM.

DETAILS have come to hand of the results from tapping 5786 rubber trees (*Ficus elastica*), in the spring of 1899, in the government plantation at Charduar, in Assam, India, the trees having been planted at various times between 1873 and 1877. The size of these trees is indicated by a government report published in 1898, when 100 selected specimens measured on an average 87 feet  $8\frac{1}{2}$  inches in height, and 6 feet  $6\frac{1}{2}$  inches in girth. For purposes of comparison the trees tapped were divided into two classes: (1) trees previously untapped or moderately tapped, and (2) trees previously heavily tapped, or ill developed in growth. The average yield per tree, as weighed on collection, was .37 pound for the trees in good condition, and .19 pound for the others. One compartment, of 824 untapped trees, yielded an average of 1.02 pounds. Before marketing the product it was dried somewhat, cleaned, and reweighed, at a loss in weight of about 8 per cent. The total yield from 5786 trees was 3295 pounds, by the first weight, or 3023 pounds after drying. The average yield per acre of clean rubber was 9.4 pounds, with an average of 18 trees tapped per acre. The labor cost for tapping was 1363 rupees 8 annas, or \$276.80 gold—an average of 9.1 cents per pound. It is mentioned that the yield per tree was larger in the cases where a superior class of labor was employed. The rubber produced brought 3s. 4d. (= 81 cents) per pound in the London market, which is a good price for Assam rubber.

#### PLANTING RUBBER IN JAMAICA.

FRANCIS C. NICHOLAS, general manager of the South American Land and Exploration Co., Limited, lately returned to New York from an examination of the company's lands in Colombia, reports having visited Jamaica, where he believes all the conditions are favorable for planting rubber (*Castilloa elastica*), although it is not indigenous to the island. He purchased lands and planted a rubber nursery of four acres with seeds obtained from Costa Rica, near Port Limon. Jamaica is in the same latitude as Porto Rico, and, in case Mr. Nicholas's experiments succeed, it might be held to point to the practicability of planting rubber on the latter island.

#### ANOTHER CENTRAL AMERICAN ENTERPRISE.

THE Honduras Rubber Co., incorporated under California laws, with \$100,000 capital, and with head offices at Los Angeles, Cal., have a government patent for 1000 acres near San Pedro Sula, Honduras, convenient to Puerto Cortez, on the Atlantic coast. During the past year 31,000 rubber trees have been planted under the direction of Leon A. Goff, the company's resident general manager, who is described as having been long familiar with Central American planting. Nurseries have been formed to provide for further planting. Shares in the company will be offered for sale on instalments, with the idea that the planted trees will be productive before the last payments are due. H. H. Yerington and F. M. Goff, both of Los Angeles, are president and secretary, respectively.

A NOTE from French Guiana (Cayenne) mentions that in 1899 about 900 kilograms of Balata were gathered in that colony by convict labor. Evidently the once much advertised Jean Rubber Co., of Cayenne, has not proved a success.

### THE FIRST SUBMARINE CABLE.

THE first practical application of submarine telegraphy is claimed by W. F. Bradshaw, in an article in the *Scientific American*, for John Boyd Sleeth, a Tennessee river steamboat captain. In 1845 Sleeth was at Paducah, Ky., in the employ of Tal. P. Shafner, who had charge of the telegraph line connecting Nashville, Tenn., and St. Louis, Mo. The wires of the line across the Ohio river at Paducah were strung upon lofty poles high above the stacks of passing steamers, but much trouble was experienced from accidents, and the idea of laying an insulated wire across the river bed occurred to young Sleeth. One strand of wire was used, wrapped first with canvas such as was then used for roofing steamboats, the canvas having been soaked in hot pine tar pitch. The covering process was continued until the wire was about half an inch in diameter, and then it was guarded by wire of a slightly smaller size, eighteen wires being placed parallel, as is now the custom. The whole was then wrapped by loose coil with another wire



A PORTION OF THE FIRST SUBMARINE CABLE.

[By courtesy of the *Scientific American*.]

of the same size. The cable was over a mile long, and worked satisfactorily for several weeks under water, when the pitch insulation became water-soaked and the cable was abandoned. The late Cyrus W. Field, afterwards famous in connection with submarine telegraphy, sent a representative to Mr. Sleeth, and proposed a partnership with him in making further experiments, but the offer was declined. About three years ago the cable was discovered in the river, and the above illustration is reproduced from a photograph of a piece filed off from it.

### RUBBER TIRES IN PHILADELPHIA.

IT is rather surprising to find, in *The Carriage Monthly* for July, an editorial on "the increasing use of rubber tires on pleasure vehicles" in Philadelphia, in which it is asserted that only "probably 8 or 10 per cent." of the carriages to be seen in a prominent park there are "rubber tired—a few with pneumatic tires, but the greater part with solid rubber." More than five years ago THE INDIA RUBBER WORLD reported the result of an accurate count of the rubber tired pleasure vehicles to be seen on Fifth avenue, in New York, the proportion being about 18 to every 100 carriages. Subsequently another count showed that 30 per cent. or more of the vehicles other than business wagons to be seen on New York city streets were rubber tired, while to-day it is safe to say that largely more than half the carriages are so equipped. Not only are rubber tires thus largely in use in the city proper, but throughout Greater New York, and even beyond, as in the outlying portions of Long Island, the use of rubber tires on pleasure vehicles appears to be very general. What do the carriage makers in Philadelphia mean by being content to sell 90 per cent. or more of their vehicles without rubber?

## THE INDIA-RUBBER INDUSTRY IN GREAT BRITAIN.

*By Our Regular Correspondent.*

THE general activity in the rubber trade which set in about the middle of last year, and which had an uninterrupted run of so many months, has declined somewhat of late and some complaints of slackness have been heard. This applies with more force to firms who have not

GENERAL  
TRADE  
CONDITIONS.

participated in the government contracts, since those who obtained these contracts are still busy in getting out the goods. Work continues pretty brisk all round, though there is not the same necessity for working overtime that there was six months ago—a state of affairs that finds its counterpart in the textile industries, especially in cotton spinning. It is quite possible that, if a depression should again set in, we may hear of an attempt to resuscitate the dry bones of the rubber combination scheme, which a recent writer in the *Financial News* stated was sure to prove a blessing, an expression of opinion shared by a prominent rubber man who recently spoke on the subject to the writer. The German Rubber Manufacturers' Association, to judge by the reports which have been published, comprises a much larger percentage of the trade than is the case here; the fact that many of our manufacturers have held aloof from our Rubber Association has already been referred to in these columns, and, from personal inquiries which I have made, I gather that those who are outside are quite satisfied with the position in which they find themselves. It must not be overlooked that the association practically confines its operations to mechanical goods and elastic thread, not concerning itself with the important branch of proofing. The proceedings of the solemn council representing the Rubber Manufacturers' Association in England are, as is well known, carried on in private, and are not available as material for the pen of the journalist who prefers to base his remarks on reliable information. It may be said in passing, however, that some little difficulty seems to have been experienced in getting all the members of the Association to work uniformly in the delicate matter of quality and price, that is if what one hears is the outcome of fact and not the product of fancy. I don't know what is the case in other trades, but there seems to be a more or less deeply-rooted suspicion current in the minds of rubber manufacturers as to the bona-fides of their competitors. But to return to slackness in trade, anything that is said on this subject must be received with due reserve, because it is frequently found that, while one manufacturer is in a somewhat doleful mood, another is jubilant over an increase in his business.

THE competition in this line between the English firms and the large German producers has long been a feature of the trade, and it remains acute at the present day.

HOLLOW  
RUBBER BALLS.

The combination which was effected some years ago between the English and German makers, by means of which the price was raised, had for its chief result a lack of orders and consequent stagnation for the principal English manufacturer, while at the same time it enabled an Italian firm, who had gone into the business, to establish an important footing in the English trade. At present it is understood that some sort of an arrangement as to prices has been come to between the English and German makers, with the result that the Italian business in this country has practically died out. Though a comparatively small firm in

other respects, the Eccles Rubber and Cycle Co. can easily hold their own in competing for the largest contracts, from the advantage they possess in their patent ball-making machine, by which they can fill orders much more rapidly than can firms who still manufacture by hand. The business is not one that increases by leaps and bounds; indeed, it shows a tendency to remain practically stationary. The uncovered red tennis ball is largely made by the English firms and finds a ready sale in certain markets where the covered ball is not in favor. As regards this ball, the blooming of the sulphur on the surface has always been regarded—in the merchant's eye at least—as a serious defect, and repeated efforts have been put forward by the makers to overcome it. However but little success has been attained. The price obtainable for the balls is not one that allows of any expense in the manufacture more than is absolutely necessary.

THE high price of coal which has prevailed for so long, and the prospects of a further rise, has naturally proved a source of vexation of spirit in the rubber trade, the fall in the price of rubber having been neutralized by the extra cost in working. Nor is coal the only material in which a further rise may be anticipated, for the shortage in the supply of cotton in hand at Liverpool portends a stoppage in the spinning trade, with a consequent rise in prices unless the new crop turns out to be an extra good one. Cotton duck for mechanical rubber purposes has already seen a rise this year from 7d. to 10d. per pound, and there is every prospect of a further rise, in some qualities of the material, at any rate.

THE article on "Fire Losses and the Rubber Trade," in the July issue of THE INDIA RUBBER WORLD, relates to a matter really of considerable importance. That the effectiveness with which a conflagration can be grappled with is jeopardized by the use of old or inferior hose is of course a truism, but it is one which needs bringing home to the purchasers of the article. The squabbling which is mentioned as having occurred in American towns about the price of fire hose is not at all uncommon in England. There seems to be a lamentable ignorance among municipal authorities and others who have to buy the article as to the value of the various brands, and the question of price is far too much to the fore. Though there are a number of dealers in fire hose in the United Kingdom, there are but few manufacturers, prominent among these being William Rose & Co., of the Metropolitan Works, Salford, Manchester, who make a specialty of hand-woven linen hose. Opinion is divided in Great Britain as to the advantages of using rubber-lined hose. This latter is now made both by the seamless method and by the older-fashioned joint method, and from what I can gather the general opinion is that the seamless does not last so long as the other, the reason given for this being that the quality of rubber is not so good, it being necessary to use a soft rubber for the purpose. There is no doubt something in this explanation, though I do not care to commit myself to its support or refutation. The British government, especially the war office and admiralty departments, are large contractors for fire hose, the latter requiring it to be oak-tanned as a protection against mildew. With regard to this tanning, a story was current some time ago that hose merely dyed with an aniline brown was

MANUFACTURING  
EXPENSES.FIRE HOSE  
IN  
GREAT BRITAIN.



passed by the authorities, but unless the particulars as to hose contracts come out at the government contracts enquiry, which is now sitting, it is as well not to attach too much importance to rumors of the sort. Certainly with regard to government contracts generally one hears very odd comments made by those who have been unsuccessful in their tenders.

I DON'T know what is the ratio in other countries, between situations vacant and situations wanted in the rubber trade, but in England we always seem to have a number of men who are on the look out for situations as managers or sub managers. The occasional failure of small works and the frequent changes made by some of the more important ones are causes by which the number of those out of employment keeps at a pretty constant figure. Of course the comparatively limited extent of the rubber trade as compared with other industries serves seriously to handicap those who are on the look out for new employment, and it is not surprising that some are found to give up the trade altogether and start in a new direction.

"I am going into a trade," said a former rubber works manager and chemist to me the other day, "where one is not being perpetually badgered to copy some one else's goods and to be always bringing out something of which you have no previous knowledge."

In the case of a good many aspirants for managerial honors it must be confessed that their qualifications for the posts on which they cast their eyes are not always abundantly clear to less interested persons, but then in a trade where every other person is an expert it is hardly to be expected that there should be any lack of mere managers. I do not want, however, to treat the subject in too light a vein, for it is serious enough for those who happen to be "out," among whom I regret to have to reckon one or two old and capable acquaintances. The position, however, is certainly one that calls for us to pause and consider carefully before falling in with the scheme recently propounded in the *Gummi-Zeitung* (Dresden) for the formation of a technical college where chemists and managers could be specially educated for the rubber trade. Leaving out of account altogether the vexed question whether technology can be taught satisfactorily outside the works it is certainly open to grave doubt whether a tithe of the graduates in a Rubber Institute would be able to find remunerative employment in their special sphere of knowledge.

MANCHESTER is coming to the fore as a center of activity in electric engineering, the new enterprises mostly having their seat in Trafford Park. W. T. Glover & Co. have lately moved into their commodious new premises in the Park. Beyond a preliminary clearance of trees, the British Westinghouse Co. has not made any progress in the building of their works, but the generating station of the Trafford Power and Light Supply Co., Limited, is approaching completion, and the Lancashire Dynamo and Motor Co. have already commenced business in their new premises.

THE interesting notice of the rubber business of the house of Pirelli & Co., of Milan, which appeared in the June issue of THE INDIA RUBBER WORLD closes with the remark that it is understood that there exists in Italy only one other firm engaged in the consumption of crude rubber, and that on a small scale. This statement is only partially true, as the electrical firm of Tedeschi, in Turin, manufacture rubber covered wires, though as far as the general rubber business goes, there is only Bender & Martigny to be considered. This firm, however, like Pirelli, has made great

advances of late years, as those who have been to their retail establishment in Turin can testify. They make a great feature of waterproof garments, a class of goods which seem to be in more demand in the Italian peninsula than in most parts of the Continent. Their mechanical rubber business includes a variety of goods and they carry on the asbestos manufacture in all its branches.

THE Maponite golf ball is being talked about a good deal in golfing circles. The ball is sold at 7d. retail, a figure which has caused a good many to give it a trial. It is said to be rather hard, and thus to compare unfavorably with Gutta-percha, though the fact that the open championship was recently won by A. Taylor with a Maponite ball should go a long way in disproving any of the arguments which have been brought against it.

THE annual meeting of the Leyland and Birmingham Rubber Co., Limited, was held in Manchester on August 3, under the chairmanship of Mr. J. E. Baxter. In announcing a dividend equal to 6¼ per cent. on the year he referred to the depression in the cycle industry, which had made them very cautious in accepting orders, the volume of business in this department thus showing a decline compared with recent years. The dividend declared is not up to what was promised at the amalgamation of the companies—namely, 10 per cent.—but the chairman spoke in a sanguine manner as to the future, now that the new mill, which has recently been fitted up, is in full work. The amalgamation referred to, which was effected about two years ago, was between the old-established Leyland Rubber Co., near Preston, Lancashire; Stanley Morrison & Co., dealers of London; and Byrnes, dealers of Birmingham. The Byrnes in this case, though close relatives of the partners in the Byrnes Brothers rubber works at Birmingham, had nothing to do with this factory, but had an independent retail business in Birmingham. The Leyland and Birmingham Co., it may be mentioned, are one of the very few firms making fine cut sheet rubber, the English trade in which, despite the continental competition which has sprung up in recent years, has not declined at all, at least as far as the two oldest-established houses are concerned.—The shareholders in Capon Heaton & Co. have had another adverse balance sheet presented to them, though the loss is on a smaller scale than in recent years. The amalgamation with the Tubeless Pneumatic Tyre Co. has proved anything but a success for the old-established rubber firm and there must be many who wish that the public company had never been thought of.—The Broadfield Rubber Works, situated at Heywood, near Manchester, are announced to be sold at breaking-up price. They have long been on offer as a complete concern, but have not found a purchaser. The works were formerly the property of L. Mistovski & Co., who about eighteen months ago found themselves in financial difficulties and some arrangement was then come to with Mandleberg & Co. whereby the assets and good-will of the business was taken over, the business being almost entirely concerned with proofing.

THE rubber exports from Nicaragua for the fiscal year 1898-99 amounted in value to \$387,989 (gold) for Bluefields and \$138,241 for Greytown; total, \$526,230. The exports from Greytown weighed 230,403. Applying the same valuation to the Bluefields exports, gives a total in weight for Nicaragua for the year of 1,006,381 pounds—something more than the average in recent years. No account is taken here of the unimportant exports from Cabo Gracias a Dios.

UNEMPLOYED  
RUBBER MEN.

A NEW  
GOLF BALL.

TRADE  
NEWS  
NOTES.

ELECTRIC  
WORKS.

ITALIAN  
RUBBER  
TRADE.



## NEW GOODS AND SPECIALTIES IN RUBBER.

## CARBONIC ACID GAS AEROSTAT.

THE therapeutical application of carbonic acid gas now finds wide support within the medical profession. Some of the earlier experiments in this field yielded anything but favorable results, but, according to an address by Achilles Rose, M. D., before one of the medical associations in New York city, the trouble was due to the absence of proper means for the use of the gas. Moreover, when proper means were devised, their use either was often inconvenient or else too expensive for general use. A recent invention consists, in the first place, in the use of a small egg shaped capsule (Fig. 1), charged with sufficient liquefied carbonic gas to aerate a given quantity of liquid, when the gas is released by piercing a soft steel cap that closes the end of the capsule. These capsules are used in connection with a covered bottle, having a stopper so constructed that, by means of the proper pressure, a capsule placed inside is pierced and its contents aerate the liquid contained in the bottle. This plan is pursued in aerating beverages. But for medicinal use, for douches and the like—and carbonic acid gas is now applied for all human ills for which medical treatment has been applied in the past by means of syringes and atomizers—a special contrivance has appeared, called an "Aërostat" (Fig. 2). This consists of a rubber bag

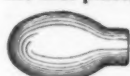


FIG. 1.

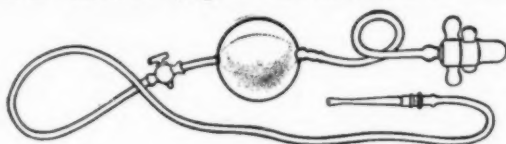


FIG. 2.

filled with the liquid agent to be applied to the affected membrane, and supplied with an attachment at the outer end of the connecting rubber tube for holding one of the capsules already referred to. The pressure of a screw at this point pierces the capsule, when its contents flow into the rubber bag, to be retained there until the gas is permitted to escape by means of the stop cock which regulates the outlet from the bag. These bulbs or rubber bags are guaranteed to stand a very heavy pressure, and the tubes may be fitted with a variety of hard rubber pipes, adapted to various applications of the treatment. It may be mentioned that the trade name "Sparklets" has been given to the steel capsules above described. The price of the Aërostat, complete, is \$5. [Compressed Gas Capsule Co., Broadway and Twenty-fifth street, New York.]

## CAMP'S RUBBER HORSESHOE.

THE basis of this new article is a horseshoe made of drop forged steel, grooved out on the under side to receive the rubber. The grooving is so designed as to leave two rims all the way around the shoe  $\frac{1}{4}$  inch thick (or wide), which not only serve as side supports for holding the rubber in place, but stiffen the shoe and prevent it from bending. The chief means of holding the rubber in place, however, is a series of five hard steel studs, attached firmly to the steel shoe, which engage in an equal number of small holes in the rubber. When the rubber is forced in place, it closes around and becomes very secure under the shoulders of the studs, making it practically impossible for the rubber to come off. Before the rubber is put on it is stitched with heavily waxed linen thread, both to

make the shoe more durable and to protect the rubber from spreading. The shoes are made for the inventor in Chicago and are said to have been used satisfactorily in all the large cities. [J. M. Camp, No. 617 Grand avenue, Des Moines, Iowa.]

## "PROTECTOR" WOVEN STEEL COVERED HOSE.

WHILE the usual forms of so called protected hose, while new, may protect the rubber from abrasion, it too often happens that a little use will destroy the rubber, between the scraping of the sharp edges of the wires with which the hose is wound and the pressure from within. In this new protected hose, the rubber is better protected, for the reason that the wires are flat and thoroughly galvanized. These flat wires are not pulled over the hose, as has been the practice in making some of the protected hose in use hitherto, but are closely woven by means of patented machinery, with a snug and even pressure from every point, affording a firm support to the enclosed hose. Not only do the flat wires of this new product make no impression on the rubber hose, but, because they are woven and interlaced closely around the hose, the rubber is



completely protected from that cutting and scraping which the ordinary spirally wound wires cannot guard against. The "Protector" hose is durable for the additional reason that its peculiar form of construction enables it to withstand severe hauling and dragging over rough surfaces, such as are found in shipyards, quarries, boiler shops, and in other places where the use of unprotected hose is impracticable. The "Protector" hose is fitted particularly for pneumatic tools, and for all other purposes which require conduits capable of resisting continued pressures of great force. With its other advantages, it has the merit of flexibility, and at the same time is free from tendency to "kink" or collapse. The same company manufacture the Gunnell coupling, which is especially designed to attach to the "Protector" hose when used for pneumatic tools. [Woven Steel Hose and Cable Co., Trenton, New Jersey.]

## ELECTRIC FIRE HOSE SIGNALS.

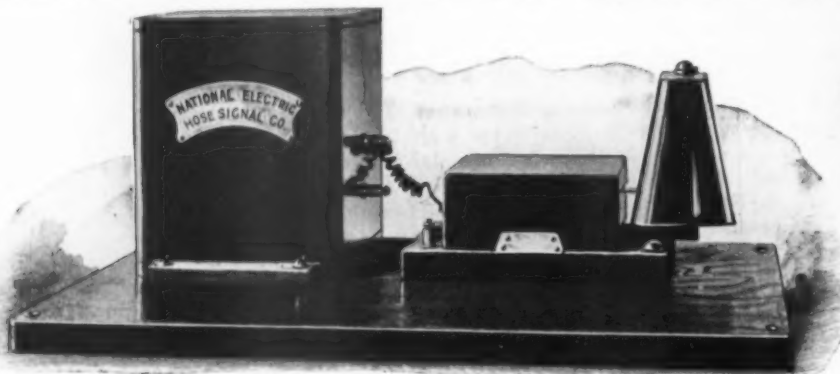
IT is an axiom among firemen that every second of time gained at the beginning of a battle against fire is worth an hour later on. Hence the elimination of delay has been the prime

object of most recent improvements in methods and apparatus for fighting fires. Electric alarms now give prompt notice of the outbreak of fires, replacing the old system of notification by bell or crier, and every fire department detail is marvelously rapid in operation until the scene of a fire is reached, the hose is unreeled, and hydrant couplings made. Then much time is apt to be lost through the liability of instructions to the firemen to be unheard, in the noise and confusion in the street, or misunderstood. A late invention provides a means of sig-

—probably 25 cents more. Fuller information can be obtained from the manufacturers. [Apsley Rubber Co., Hudson, Mass.]

#### "WEMAKA" RUBBER TIRE.

THIS is a new solid rubber vehicle tire, the distinctive features of which may be described briefly as follows: The tire is constructed with cross stays vulcanized in the rubber itself, the tire being held in place by a separate retaining band, being independent of cross stays, which permits the longitudinal



THE SIGNAL SYSTEM FOR THE ENGINE.

naling between the men at the play pipe and the engineer. Not only is such a system of immense value in directing the movements of the firemen, but it may be the means of saving life. Too often we hear of loss of life when firemen are cut off by flames from assistance of their comrades and are not able to communicate with them. The equipment consists of a small dry battery and bell on the engine, generally placed under the driver's seat, and wired to the engine couplings, which are arranged for electrical conductivity. There are also two nozzles with press buttons, to go between the end of the hose line

It is claimed to be impossible for the tire to roll out of the channel or for the longitudinal wire to cut through the rubber. ["Wemaka" Rubber Tire Co., No. 396 Wabash avenue, Chicago, Illinois.]

#### "QUEEN" FOLDING SHOE STOOL.

AN article which will prove of convenience in every shoe store may be mentioned here on account of the use of rubber in its construction. The "Queen" folding shoe stool is made of oak with leather upholstered seat and rubber covered foot rest. The foot rest, when not in use, can be made to hang at the side without removing it from

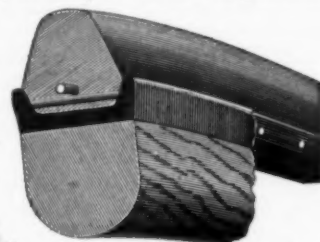


VARIOUS FORMS OF NOZZLE ATTACHMENTS.

and the play pipes. The system is applicable to any style of hose or of hose couplings. By means of hose electrically wired, the engine is practically under the direction of the officer at the play pipe, and subject to his orders. Water comes when needed, and the engine immediately stops when the necessity occurs. By means of a prearranged code, a great number of different messages may be conveyed through the wired hose by merely pressing the signal buttons fitted to the couplings. [National Electric Hose Signal Co., No. 38 Chardon street, Boston.]

#### THE "WASHSTAND" RUBBER BOOT.

THIS is an article made with special care from pure gum, expressly for the use of the livery stable people and all other people who have need for rubber boots in washing carriages. They embody the results of investigation as to just what is wanted on the washstand of the stable and they sell for very little more than what it is usual to pay for good rubber boots



compression of rubber along the retaining band; and where the rubber is compressed in the channel, the pressure of the retaining band is distributed and equalized by the cross stays throughout the entire length and width of the tire.



the stool, reducing the space occupied by the whole about one half. The stool is then capable of being utilized in various other ways. The retail price is \$2.25. [Edward E. Spencer & Co., No. 34 Warren street, New York.]

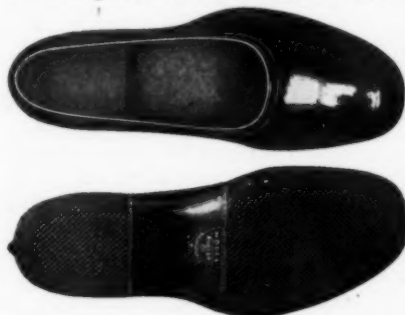
#### A MOTOR TIRE FOR WINTER USE.

A NEW pneumatic motor tire owes its novelty to a series of small projecting steel spurs, designed to make possible the propulsion of the vehicle over ice. It is, in fact, a non slipping tire for winter use. A satisfactory test was made with this tire recently, with a "locomobile," near Bridgeport, Conn., on an inclined plane, at about 35 degrees, and covered with ice. The

inventor of the tire is K. Arvid Entino, of Naugatuck, Conn. The spurs, by the way, are detachable, permitting the tires to be used without them during the summer.

#### MEN'S SELF ACTING "HARVARD" SHOE.

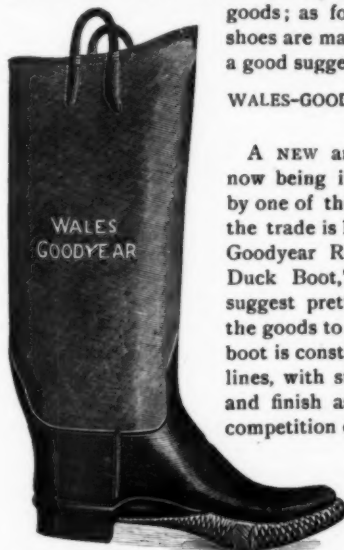
SOMETHING new in fine rubber footwear is the line of men's self acting overs, offered under the brand "Harvard" by the



Model Rubber Co (Woonsocket, R. I.) These shoes come under the department of the company's output which they call "Black Beauty" specialties, partly because the goods are black lined. They are made to wear over the lat-

est style of leather footwear—the new English toe—a style so popular just now with students and young men generally. The company's selling agent, E. H. Cutler, has been calling the attention of the trade to the style, fit, and quality of these goods; as for the lines on which the shoes are made, the illustrations afford a good suggestion.

#### WALES-GOODYEAR ARMOR CLAD DUCK BOOT.



A NEW article in rubber footwear now being introduced to the market by one of the oldest manufacturers in the trade is listed as the "New Wales-Goodyear Rolled Edge Armor Clad Duck Boot," which name alone will suggest pretty fully the character of the goods to which it is applied. This boot is constructed on somewhat novel lines, with such regard to quality, fit, and finish as will place it above the competition of cheap or imitation duck boots. As its name indicates, this boot is manufactured by the Wales-Goodyear Rubber Shoe Co. (Nauga-

tuck, Conn.), and Selling Agent Chester J. Pike is offering it as the "prize product" of this factory.

#### SOME WANTS OF THE RUBBER TRADE.

[120] FROM a manufacturer of insulated wire we have an inquiry as follows: "Will you kindly advise us the name of some of the manufacturers of or dealers in a substance known to the trade as 'flake' or 'electric flake'?"

[121] "Where can we get a loom for weaving elastic stockings?"

[122] "You would oblige us greatly if you could give us a receipt for making an extra good rubber cement, such as is used for setting plugs in tires."

[123] "We would also be pleased to get a receipt for a good wood rim cement."

[124] A letter from Germany asks for the address of manufacturers of dress shields.

#### AMERICAN RUBBER GOODS EXPORTS.

RETURNS have now come to hand of exports of rubber goods from the United States for the twelve months of the last fiscal year, the values being as follows:

MONTHS.	Belting, Packing, and Hose.	Boots and Shoes.	All other Rubber.	TOTAL.
July, 1899....	\$51,535	\$22,580	\$ 99,918	\$174,033
August.....	59,069	43,378	102,264	204,711
September....	42,858	34,233	122,959	200,050
October.....	52,643	34,894	106,223	193,760
November....	33,913	47,898	120,221	202,032
December....	39,051	40,426	101,771	181,248
January, 1900.	40,137	30,452	94,886	165,475
February....	38,724	27,246	128,017	193,987
March.....	39,749	30,866	140,353	210,968
April.....	41,541	18,398	115,797	175,736
May.....	53,252	42,576	125,421	221,249
June.....	46,541	47,992	146,375	240,908
Total.....	\$539,013	\$420,939	\$1,404,205	\$2,364,157

The exports of rubber goods of all kinds for the corresponding twelve months of 1898-99 reached a total value of only \$1,765,385. The rate of increase is 33.9 per cent. The exports of rubber shoes during the fiscal year amounted to 762,016 pairs, against 486,586 pairs during the preceding fiscal year—an increase of 56.8 per cent.

Exports of reclaimed rubber from the United States, by fiscal years, have amounted in value as follows:

1897-98.	1898-99.	1899-00.
\$257,639	\$376,962	\$491,599

#### WHERE AMERICAN RUBBER GOODS GO.

EXPORTS from New York, during the four weeks ended July 31, 1900, classed as "India-rubber goods," amounted in value and were consigned as follows, the figures being larger than for the corresponding period in any former year:

Great Britain....	\$33,618	Mexico.....	\$2,923	Australia.....	\$2,550
Germany.....	29,499	Central Amer.	601	New Zealand....	7,133
France.....	2,861	Cuba.....	1,928	Tasmania.....	129
Holland.....	1,137	Porto Rico....	382	China.....	419
Belgium.....	152	British W. Ind.	353	Japan.....	5,153
Denmark.....	465	San Domingo.	120	Hongkong.....	1,579
Norway.....	1,600	Haiti.....	22	British E. Ind.	839
Sweden.....	1,941	Argentina....	2,159	Russia in Asia.	1,200
Austria.....	369	Brazil.....	687	British Africa.	8,626
Hungary....	160	Colombia.....	127	Portuguese Afr.	249
Italy.....	265	Ecuador.....	46		
Spain.....	487	Uruguay.....	14	Total....	\$110,391
Newfoundland.	46	Peru.....	431		
Nova Scotia...	144	Venezuela....	177		

The value of such goods exported from New York amounts usually to about 60 per cent. of the total for the United States. These statistics do not include rubber goods that may have been embraced in electrical material, dental material, bicycle material, and the like, or tires shipped on bicycles or vehicles. Nor do the above figures include a shipment of "India-rubber shoes," \$3277; or "India-rubber thread," \$17,272; or "Dress shields," \$23,122; or "Clothes wringers," \$5773. Reclaimed rubber was exported from New York during the same four weeks to the value of \$25,798.

Without doubt there will be an opening at Buenos Aires for rubber belting for grain elevators. The Argentine republic is gaining importance all the while as a grain exporting country, and, naturally, the latest improvements in facilities for handling grain must come into use there. A specially important concession for the erection of grain elevators at Buenos Aires has been granted by the national minister of agriculture.



## JOTTINGS BY THE TRAVELING EDITOR.

TEAM work in rubber factories is getting to be more and more a matter that is carefully looked into, and, wherever it is possible, it is being adopted. This does away, to an extent, of course, with piece work, but any one who has studied the labor problem in connection with rubber is bound to be impressed with the fact that the best results are not always gained through piece work. In arranging for team work, it is desirable to have a knowledge of what can be done under the piece work system, in order to measure accurately the results under the team system. Already in rubber shoe factories teams are employed in making up shoes, and the work is being done very satisfactorily, with fewer faults in manufacture. In druggists' sundries, also, this system has long been in practice in one of the best organized factories in the world. In mackintoshes, a factory which is conspicuous for its money making proclivities, even in the face of the hardest times, has almost wholly done away with piece work and substituted small teams, over each of which is a forewoman who gets a trifle more than her charges, and who has an assistant ever ready to assume charge if her superior in any way fails in her duty. Of course, fully as regular a system of inspection must be followed where teams are employed, but inspectors are necessary in all lines of work.

AN expert in rubber machinery manufacture goes on record with the prediction that chilled rolls for both calenders and grinders will not be used as much in the future as in the past. He contends that for mixing, a soft iron roll is equally good and cheaper, and cites one of the largest rubber plants in the United States, all of whose mixing mills are soft iron. He also explains his position regarding calender rolls, by the statement that when a chilled roll is scarred it is apt to be run for some time before the management will have it ground down, because grinding is a costly and tiresome problem. He holds that a calender roll of tough iron, as carefully handled as a chilled roll, is not much more likely to be scarred, and, in the event of its needing grinding down, it is a far easier task. It must be remembered, however, that the chilled roll has taken possession of the field, both in America and abroad, and has done good service, and rubber manufacturers are slow to make radical changes.

SOME of the first and best articles in relation to the India-rubber industry in this country were published in *Hunt's Merchants' Magazine*, a periodical that took a very high stand for something like thirty or forty years and went out of existence about twenty years ago. The founder of the magazine was the father of the well known Boston attorney, Freeman Hunt, who has so successfully handled many cases in connection with the rubber business.

A GENTLEMAN at the head of a large rubber shoe factory (not connected with the United States Rubber Co.), said recently: "I believe that we outsiders should feel our special indebtedness to the so-called 'Trust,' in that it has steadied the prices and kept them where there is a living profit in business. Indeed, so impressed am I with the value of the work that this great corporation has done, that I am not going to try to make my mill too big. In other words, my policy and my influence will be toward a reduction in output that, if wisely car-

ried out, means a lessening of responsibility and an increase in profits."

RIGHT in this line, I am reminded of a chat with another rubber man, who, speaking of a certain rubber shoe factory, said: "When that mill is shut down its daily expenses are \$500, not counting interest and insurance. Now the curse of the rubber shoe business is the fact that the factories are not able to run three hundred days in the year, and shutting down when times are dull cuts down the profits woefully and demoralizes the whole working force."

DIFFERENT devices for grinding old rubber shoes before treatment in the manufacture of reclaimed rubber still occupy the attention of progressive manufacturers in this line. Almost all of the makers of pulverizers and grinding machinery have implicit confidence in the superiority of their own machines for this work; but as a matter of fact they do not appreciate how difficult a problem the grinding of old rubber shoes is. This was illustrated not long ago, when a maker of a well known machine was so sure of the adaptability of it for this kind of work, that, without any preliminary testing, he set one up in a rubber mill, guaranteeing to turn out a fabulous number of tons in ten hours. The first shoe that went through, however, tore the machine all to pieces and he had to acknowledge that grinding rubber was different from grinding anything else that he had undertaken.

NEW appliances in connection with the manufacture of rubber shoes, while not in any way revolutionary, are still constantly invented. For example, Warner's shoe tying tool is one of the neatest little appliances for attaching rubber shoes in pairs that one can imagine, and, while it was originally designed by a rubber shoe manufacturer for use in only one factory, it has rapidly come into use in all of them. Another improvement in rubber shoe work is the substitution of iron stock frames for wooden ones. The iron frames are lighter; take up far less room; are absolutely free from splinters; while there is, of course, a certain added advantage in their use, in that they are not inflammable. As they are not quite as rigid as wooden ones, they do not slide off when put in piles, and of course they last much longer. In one rubber shoe manufactory where 3000 frames are in use, it takes a man and a boy all of their time to keep them in repair, something that would be saved in the use of the metal rack.

SURPRISE was expressed by a recent visitor to this country from Germany at the large use in American cities of rubber horseshoes and horseshoe pads. He thought that a good business could be done in introducing them into his country, where they were unknown. "But some of your large German manufacturers list such goods in their catalogues," I said. "That may be," he replied. "A German manufacturer who receives a single order for a new article, in case he should fill it, is likely to have a plate made to illustrate it, and include it in his advertising matter as a means of gaining possible new customers. But the fact that you may see rubber horseshoe pads listed in a German rubber manufacturer's catalogue is no evidence that the public is acquainted with such an article, or that such are in general use."



## STATE OF THE BICYCLE TIRE TRADE.

## HOW MANY BICYCLE TIRES ARE MADE?

THE year's output of bicycles in the United States is calculated by *The Bicycling World* at less than a million, distributed as follows:

American Bicycle Co. plants.....	300,000
Sixty-three independent plants.....	375,000
Assemblers and small makers.....	150,000 825,000

There is, of course, no means of finding out certainly how many bicycles are made in any year, but *The Bicycling World* used to be pretty good authority on such matters when trade conditions were different, and its guess to day probably is as near the mark as any other. The bicycle exports are estimated at 125,000, leaving 700,000 for "home consumption."

A rubber tire expert, one year ago, favored THE INDIA RUBBER WORLD with an estimate of the number of cycle tires made in the United States during the season then closing, amounting to 1,550,000 pairs, of which 250,000 pairs were estimated to have been exported. This would leave 1,300,000 pairs for the home market, but it is impossible to say what proportion of the total output was required for new wheels, and what for renewals. Of the total output, 700,000 pairs were credited to a single firm, but, owing to the subsequent formation of the bicycle trust, with affiliations with certain tire manufacturing firms, the same large production was not expected for the following year by the firm referred to. It is safe to say that a total production of 1,550,000 pairs of tires meant a larger outturn of cycles than is estimated by *The Bicycling World* for the season just closed. But there are observers of the trade who believe that fewer wheels are being made.

In an affidavit by the president of The India Rubber Co. (Akron, Ohio), filed in connection with a suit now in progress in the rubber tire trade, that gentleman asserts that the sale of bicycles and tires reached its maximum in 1898, since when it has declined, and that it is his belief that the sales and deliveries of cycle tires of all types and kinds for the twelve months beginning August 31, 1899, will not exceed 1,250,000 pairs, including 600,000 of unguaranteed Tillinghast tires.

## LITIGATION OVER TIRES AT AKRON.

THE Single Tube Automobile and Bicycle Tire Co., of Belleville, N. J., filed a suit recently in the United States circuit court at Cleveland, Ohio, against the Goodyear Tire and Rubber Co., of Akron, for royalties claimed to be due and unpaid on account of bicycle tires manufactured under the Tillinghast patents, which are controlled by the plaintiff company. The case coming before Judge Ricks, at Cleveland, on July 14, he granted the prayer of the plaintiff for a temporary injunction restraining the Goodyear company from further selling tires below the price agreed upon by the various licensees under the Tillinghast patents. On July 26, at Canton, Ohio, Judge William R. Day, of the same court, and lately secretary of state of the United States, dissolved the temporary injunction, leaving the Goodyear company free to continue their business as heretofore, pending the trial of the suit for the collection of royalties.

The contention of the plaintiffs was that under the terms of the license granted to the Goodyear Tire and Rubber Co., the latter were exempted from the payment of royalties only on tires the sale of which was contracted for prior to January 1, 1900, but that the defendants had padded their lists, antedated con-

tracts, and otherwise evaded the terms of their agreement to such an extent that they, the defendants, were claiming the right to deliver, since the date of their license, and at former prices, as many as 408,000 pairs of tires should their customers require them. An affidavit presented by the plaintiffs was to the effect that, the books and records of the Goodyear company having been searched, only 89,000 pairs of tires could be found to have been absolutely contracted for prior to January 1. Affidavits from other manufacturers licensed by the Single Tube company were to the effect that none of them could do business at a profit if the Goodyear company were to be allowed to sell tires at less than the agreement prices and without the payment of royalties.

A statement which was published in behalf of the defendants says: "The contention is over the interpretation of contracts made by them with their customers prior to January 1, 1900. Some of these contracts provided for the out and out purchase by the customer of a certain quantity of tires before a certain time, and in consideration of the customer taking this minimum quantity he was to have the right to order a certain specified quantity before the time of expiration of the contract. In all cases the Goodyear company has considered its obligations to its customers as binding legally and morally, and it has fulfilled every promise to an agent or customer, while the firms represented in this petition for injunction have openly and flagrantly broken contracts and pledges right and left. The Goodyear people say that last January, when they agreed with other makers of single tube tires to recognize the Tillinghast tires and pay royalty, it was distinctly understood and agreed by all the tire manufacturers with Colonel Dodge and his people, that all obligations in the way of contracts were to be carried out first, and that then the makers could make the new basis of prices operative. Under this arrangement all the manufacturers have been working, and the Goodyear people say they have been notifying their customers that they positively would not furnish any more tires after September 1 [1900], on any old contracts whatsoever. They contend that they have labored with their customers, and in many cases got them to agree to a reduction of the specifications on contract, and the largest customers of the Goodyear people will unhesitatingly say that they have not had their contracts overfilled and in no way has there been any violation of the same."

The court having required the defendants to answer certain inquiries, and answers having been made, it was then held that, inasmuch as the auditors for the Single Tube Automobile and Bicycle Tire Co. had admitted having examined all the contracts, correspondence, and records of the Goodyear company, there could have been no concealment and no attempt at fraud; that the contracts shown by the Goodyear company were evidence of sales made by the company to its customers; that the contracts alleged by the complainant to be optional were, nevertheless, binding upon the Goodyear company for the reason that they contained a specific consideration and were limited to certain quantities of tires; that the contracts claimed as season's requirements, and therefore not binding on either party, nevertheless contained an obligation, and by fulfillment had become actual agreements, and that in carrying them out the Goodyear company was only acting in good faith with its customers and within its legal rights, and that the charges of fraud had not been sustained.

## HECHT, LEVIS &amp; KAHN'S REVIEW.

THE annual rubber circular issued from Liverpool by the above named importing firm mentions that during the year prices for Pará rubber reached a point seen only once before—namely, in 1882—and which in years gone by would have been unattainable without the aid of powerful speculators. The high and violent fluctuations which have occurred during the year have made business extremely difficult to manufacturers as well as to importers accustomed to carry large stocks. It is a remarkable fact, and speaks volumes for the healthy condition of the rubber industry, that, notwithstanding such unfavorable circumstances, consumption should have been able to keep pace with the ever increasing production, being only 1 per cent. smaller than that of the previous season.

There seems little or no prospect, says this circular, of a more reasonable level of prices being anything like permanently restored, unless, and until, manufacturers resume their former habit of carrying large stocks of their own (*i. e.*, create an "invisible" supply, as distinguished from the "visible" supply appearing in statistics), by the aid of which they as a class can, as formerly, tide over periods of temporary scarcity or purely artificial pressure. To do that under the "hand to mouth" policy followed at present is manifestly impossible.

The Pará crop of 1899-00 represents an increase of 5¼ per cent. over the previous crop, and of more than 63 per cent. on that of 1890-91. The increase in the production of different Pará grades, however, varies considerably, as shown by the relative shipments from Pará, viz.:

GRADES.	1890-91	1899-00	Increase.
Fine Pará.....tons.	9,954	14,183	42½%
Medium.....	1,371	2,676	95 %
Coarse.....	4,032	7,214	79 %
Peruvian.....	1,100	2,797	154 %
Total.....	16,457	26,870	63¼%

Thus, when speaking of the receipts in Pará it should be borne in mind that only about two thirds of the crop really consists of the standard quality, the supply of which has increased by 42 per cent. during the last ten years. The enormous increase in the production of secondary Pará grades is chiefly due to the opening up of fresh gathering grounds in the upper reaches of the Amazon river, and more particularly in Peru. Greater facilities and rapidity of transport, however, result also in rubber arriving on this side much fresher than in former years, while less care is being taken in the selection of fine rubber at Manáos and Pará. The quality of Peruvian ball is no longer what it used to be, but Peruvian slabs have lately arrived in excellent quality.

The following details are given in regard to the total production and consumption of rubber for years ending June 30:

	1899.	1900.
World's approximate total production...English tons	52,192	53,348
World's approximate total consumption.....	48,783	48,352
World's approximate total visible supply.....	4,871	7,869

Liverpool arrivals for the year ending June 30 showed an increase of about 1000 tons in Pará grades, and a similar decrease in mediums. The latter is entirely due to the further serious falling off in the shipments from Lagos, which reached only 543 tons, against 1620 tons last year. Of these, 511 tons went to Liverpool and 32 tons to Hamburg, against 1500 tons and 120 tons respectively, during the previous season. This serious decrease must be attributed to the reckless mode of collecting rubber which prevailed there some years ago. The shipments of Accra, alias Gold Coast, alias Cape Coast lumps, come now chiefly by way of French ports, and particularly via Grand Bassam, but the quality of most lump rubbers has

greatly deteriorated, and it is a matter of regret that certain efforts to secure an improvement have not met with the encouragement which they deserved at the hands of manufacturers.

## NEW RUBBERS AT ANTWERP.

THE first monthly circular of G. Van den Kerckhove says: "At present the Congo is yielding largely. In fact, most of the companies receive important supplies by each steamer entering. Thus the Société Anonyme Belge du Haut Congo and the Société Abir are registering their July entries at 124 and 133 tons, respectively. The Sociétés Anonymes l'Est du Kwango and La Lulonga have just received their first shipments of Caoutchouc. They are of a fine quality.

"It has been noticed with great satisfaction in the market, that Borneo is beginning to ship very respectable quantities to Antwerp. During the month of July pretty good lots have been received by the Cie. Agricole du Barito, the firm of W. Mallinckrodt & Co., the Colonial Trading Co., and the Comptoir Commercial Anversois. The latter company have just begun to introduce with us a grade of Caoutchouc, which has been purified in the country of its production (Borneo). This rubber is very well worked, and we have every reason to believe that it will be appreciated to its true value by its consummation."

## LOANDA AND BENGUELA RUBBER.

OUR Lisbon correspondent supplies the following statistics of the output of crude rubber from Loanda and Benguela (in Portuguese West Africa) for several years past, the figures stating the number of bags. It probably would be safe to estimate the quantity of rubber at 100 pounds per bag, or twenty bags to the ton:

YEAR.	Loanda.	Benguela.
In 1896.....bags	15,304	37,310
In 1897.....	21,973	40,704
In 1898.....	22,772	53,612
In 1899.....	23,255	42,637
In 1900—January-June.....	10,791	29,758

A study of the output of these rubbers, month by month, shows a larger rate from Benguela during the first six months of 1900 than in the same period in any preceding year, while Loanda shows a falling off.

## INCREASING INTEREST IN VENEZUELA RUBBER.

THE district of Amazonas, in Venezuela, is reported to be very rich in India-rubber, of the *Hevea* species, of which about 100 tons annually have been exported of late. The territory referred to, in western Venezuela, finds an outlet through the unique river system which connects the headwaters of the river Orinoco with the river Negro, which latter discharges into the Amazon just below Manáos. The Brazilian government is reported to be anxious to develop this new trade route, and it is proposed to employ small steamers between San Fernando de Atabapo, the capital of the Venezuelan province, and Manáos, from which latter port ocean steamers ply direct to the United States and Europe. Already much rubber yielding forest land in Venezuela is under private ownership or control, and, through the efforts of General Don Juan Anselmo, a former territorial governor in Venezuela, the various landed proprietors have become associated as the Sociedad del Gremio Gomero del Alto Orinoco, with a view to the systematic employment of Indian labor and the buying and selling of merchandise to barter for the rubber gathered. General Anselmo recently visited London to arrange for relations there with mercantile houses for the further development of the Venezuelan plans.

## THE NEW ENGLAND RUBBER CLUB'S OUTING.

THE New England Rubber Club scored a decided success in its Midsummer Impromptu, held at the Point Shirley Club, Winthrop, Mass., on the afternoon and evening of Tuesday, August 21. The occasion was, as the invitation card reads, wholly impromptu, as far as a burdensome programme was concerned. About sixty members and guests left Boston shortly after 3 o'clock on the special steamer *Madeline*, which took them to Winthrop, where barges were awaiting to take them to the spacious club house on the promontory known as Point Shirley. For an hour previous to the serving of the dinner, the rubber men took advantage of the opportunity to get better acquainted, those who had athletic tendencies devoting themselves to billiards and bowling, while others were content to sit on the broad verandas, and enjoy the sea breezes and beautiful view.

Shortly after 5, the dinner was served, and when it is said that it was probably a better fish dinner than could be gotten

anywhere except on the Providence river, good diners will appreciate that it has received the very highest praise. When, at the close of the dinner, the cigars were lighted, Mr. Arthur W. Stedman, vice president of the Club, who officiated as toast master, called the gentlemen to order, and in a brief, happy speech, spoke of the associations that clung about the Point Shirley Club, and told excellent stories indicative of Taft's interest in good living—the place having been known formerly as "Taft's." The speakers were then briefly and happily introduced, and made offhand speeches, and told stories that kept the listeners in excellent humor. The speakers were:

A. H. Yeomans, of the Boston Rubber Shoe Co.

F. H. Appleton, of the Colonial Rubber Goods Co.

A. L. Jackson, of George A. Alden & Co.

C. H. Arnold, of Reimers & Co.

J. V. Selby, agent for The Boston Woven Hose and Rubber Co., on the Pacific coast.

## Midsummer Impromptu



THE Executive Committee of the New England Rubber Club take pleasure in informing you that the Point Shirley Club, Winthrop, Mass., have placed their very attractive club house and grounds at our disposal for the

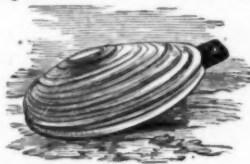
Afternoon and Evening of

**Tuesday, August 21.**

Your committee has accepted this invitation, and arranged for an enjoyable sail by special boat from Boston to Winthrop, and a

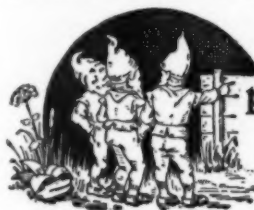
**Shore  
Dinner**

At Five

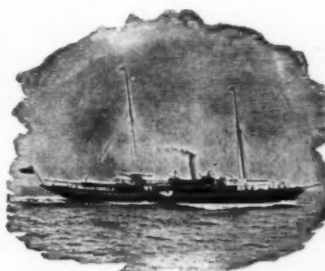


on the spot formerly famous as "Taft's," (now the Point Shirley Club).

While the Outing will be as its title indicates, an impromptu, with no set speeches, no onerous duties for officer or member, there will be good cheer for all, and for those who desire it there will be



**Billiards, Bowling,  
Sailing, Etc.**

The Boat  
will Leave

the pier, 400 Atlantic Avenue, at 3 P.M., and returning at 9, will reach Boston at 9.30, thus allowing out-of-town members ample time to make trains.

## Should any Miss this Boat

It is well perhaps to remember that boats run to Winthrop every hour. The Revere Beach & Lynn R.R. also runs trains every half hour to the same point.



## Price of Trip.

The price of the trip, including transportation and dinner (not including wine) will be

**\$3.00**



Each member is entitled to invite one or more guests.



Kindly notify the Secretary at once of your intention to be present and number of guests by returning to him the enclosed postal card.

*Henry C. Pearson, Secy.*



F. C. Hood, of the Hood Rubber Co.

Henry C. Pearson, Editor of THE INDIA RUBBER WORLD.

During and after the dinner, the orchestra, which accompanied the Club from Boston, discoursed popular airs, and at times the members of the club, among whom are some excellent singers, joined in choruses that made the rafters ring. After the dinner, the guests were assembled in the dining-room, and a photograph taken by flashlight. The return to Boston was by boat, an exceedingly pleasant sail, enlivened by excellent music.

#### MENU

Clam Chowder	Clam Broth in Cup	Steamed Clams
Potatoes	Baked Deep Sea Turbot <i>à la</i> Taft	Cucumber and Lettuce Salad
Tom and Jerry Frappé	Baked Lobster <i>à la</i> Point Shirley	Cigarettes
Sliced Tomatoes	Broiled Chicken	Green Corn on Cob
Cheese	Baked Indian Pudding	Ice Cream Sauce
	Frozen Pudding	
	Fruit	Crackers
	Cigars	Coffee

In reviewing the whole outing, one is deeply impressed with



THE POINT SHIRLEY CLUB HOUSE.

the feeling of good fellowship that was manifest throughout the evening. At the table and away from it, both the members and guests were wholly unconstrained, and the speakers met with a constant fire of suggestions, many times witty, that kept all present in highest good humor. At no time, however, did the fun get beyond control, and the only regret of the evening was the universal one that the president, Mr. Henry C. Morse, was not able to time his return from Europe in order to be present. The Club as a whole extended very hearty thanks to the management of the Point Shirley Club, for their courtesy in placing their establishment at their disposal.

There were present the following Club members:

- C. H. Arnold—Reimers & Co.
- F. H. Appleton—Colonial Rubber Goods Co.
- Stephen A. Bourn—Bourn Rubber Co.
- A. H. Yeomans and A. H. Brown—Boston Rubber Shoe Co.
- C. J. Bailey—C. J. Bailey & Co.
- W. E. Barker—Enterprise Rubber Co.
- E. H. Clapp—E. H. Clapp Rubber Co.
- H. B. Sprague, J. Edwin Davis and Robert Cowen—Boston Woven Hose and Rubber Co.
- Arthur W. Stedman, William J. Kelly and R. L. Chipman—George A. Alden & Co.
- S. Lewis Gillett and George P. Eustis—American Rubber Co.

- W. M. Farwell—Empire Rubber Manufacturing Co.
- John H. Flint—Tyer Rubber Co.
- C. C. Converse, W. H. Gleason, J. H. Learned, and F. W. Veazie—Revere Rubber Co.
- F. C. Hood—Hood Rubber Co.
- W. S. Knowles—Manhattan Rubber Manufacturing Co.
- T. J. Skinner and W. F. McClintock—Stoughton Rubber Co.
- J. E. Odell—Danversport Rubber Co.
- Henry C. Pearson—THE INDIA RUBBER WORLD.
- Fred L. Smith and W. F. Stevens—Byfield Rubber Co.
- George P. Whitmore—Boston Belting Co.
- A. D. Warner—Beacon Falls Rubber Shoe Co.
- J. F. Wheeler—Concord Rubber Co.
- Robert B. Baird—Otto G. Mayer & Co.

The invited guests were; Floyd Coon, Fred Hines, George W. Knowlton, Will Shackley, George W. Anderson, F. R. Hunt, W. F. Chapman, A. G. Walton, A. L. Jackson, Harry W. Noyes, J. S. Patterson, Daniel Clifford, J. V. Selby, B. E. Clifford, W. H. Bedell, J. W. Work, O. C. Hagar, W. H. Gay, E. H. Wiggin, W. H. Chase, G. A. Cheever, Harry Scannell, and George Sprague.

#### RECENT RUBBER PATENTS.

##### UNITED STATES PATENT RECORD.

ISSUED JULY 3, 1900.

- NO. 652,805. Elastic stirrup. William A. Neal, Bungers, W. Va.
- 652,830. Valve for inflation. Charles E. Bown, Battle Creek, Mich., assignor to the Bown Machine Works, same place.
- 652,890. Pneumatic tire. George H. Clark, Boston, Mass., assignor to the Clark Cycle Tire Co.
- 652,904. Hose coupling. George Stroh, Detroit, Mich.
- 652,067. Pneumatic tire. John A. Jones, Cincinnati, Ohio.
- 652,975. Rubber covered article or tubing and method of making same. Frank J. Newbury, Trenton, N. J., assignor to the John A. Roebeling's Sons Co.
- 652,988. Rubber tire for vehicles. Charles H. Wheeler, Akron, Ohio.
- 653,048. Support for rubber tired vehicle wheels. Curtis Wigg, New York city.
- 653,143. Hose Coupling. Jens C. Martin, Spokane, Wash.
- 653,161. Elastic tread for boots or shoes. Elmer E. Wolf, Springfield, Ohio, assignor to the Springfield Elastic Tread Co.

ISSUED JULY 10, 1900.

- 653,351. Elastic rocker attachment. Thomas F. and William P. Kniphausen, Clymer, N. Y.
- 653,498. Packing for pistons. Ambrose A. Tripolo, New York city, assignor to the Ambrose Machine Co., same place.
- 653,497. Pneumatic tire. John Baker, Meacham, Ill.

ISSUED JULY 17, 1900.

- 653,723. Pump for automatically inflating pneumatic tires. Daniel Williamson, Sunbury, Pa.
- 653,815. Vehicle tire. Allen L. Miller, Chicago, Ill., assignor of two-thirds to Nicholas Blaha and Henry F. Erickson, same place.
- 653,828. Machine for cutting sheets of unvulcanized rubber. Arthur Sweeney, Providence, R. I.
- 654,017. Means for automatically inflating pneumatic tires. John A. Mills, Gainesville, Texas.

ISSUED JULY 24, 1900.

- 654,278. Armor or shield for pneumatic tires. William E. Pugsley, Lincoln, Neb.
- 654,389. System for controlling series of vulcanizers. Augustin E. Ellinwood and Frank A. Seiberling, Akron, Ohio, assignors to the Goodyear Tire and Rubber Co.
- 654,430. Pneumatic mattress. Joseph A. Berger, Chicago, Ill., assignor of one-half to Sandfrid Harnstrom, same place.
- 654,528. Non slipping pneumatic tire. Kanute A. Enlind, Naugatuck, Conn.

ISSUED JULY 31, 1900.

- 654,634. Automatic pump for pneumatic tired wheels. Henry H. Henning, Brisbane, Queensland.

- 654,751. Horse brush with rubber attachment. Alexander R. McDonnell, Littleton, Me.  
 654,871. Electric cable insulation. John V. Buchanan, Edinburgh, Scotland.  
 655,949-855,050. Cushion tire. Oscar P. Brown, Providence, R. I., assignor to Webber G. Kendall, same place.

## TRADE MARKS.

- 34,974. Certain named rubber goods. Peerless Rubber Manufacturing Co., New York city. Essential feature, the word "Rainbow."  
 34,975. Rubber hose. Bowers Rubber Co., San Francisco, Cal.  
 34,976. Druggists' rubber goods, except dental rubber. Ideal Rubber Co., New York city. Essential feature the word "Ideal."  
 34,977. Syringes. Victoria A. Wilhoft, New York city. Essential feature the representation of a white disk inclosed in a black article.

## ENGLISH PATENT RECORD.

## APPLICATIONS.—1900.

- 11,466. Peter Leonhard Kobertz and Paul Scheeren, 41, Zunkerstrasse, Aix-la-Chapelle, Germany. Improvements in pneumatic tires. June 25.  
 11,468. Mark Parker and Robert Thompson, Broad Street House, London. Improved vehicle tire. June 25.  
 11,473. Lewis James Winks and Thomas Irvin Newdon, 8, Quality court, Chancery lane, London. Improvements in tires for vehicle wheels applicable for other suitable purposes. June 25.  
 11,478. Josiah Dean, 73, Hartham road, Holloway, London. Changeable rubber pad for horses. June 25.  
 11,489-11,490. Basil James Nightingale, 5, Hatton garden, London. Improvements in pneumatic tires for cycles and vehicles. June 25.  
 11,550. Mark Banner, Mount Pleasant, South Lincolnshire. Pneumatic tire solution. June 26.  
 11,648. Algernon Fieldsend Weller Vellere, 35, Highbury crescent, West, London. Improvements in pneumatic tires for vehicles. June 26.  
 11,714. George Srowe, 104, Colmore row, Birmingham. Improvements in inner tubes of pneumatic tires. June 26.  
 11,729. Jabez Cartwright, 77, Colmore row, Birmingham. Improvements in air valves for pneumatic tires. June 26.  
 11,769. Bert Skinner, 1, Queen Victoria street, London. Improved India-rubber tire for vehicles. June 26.  
 11,793. William and John Charles Hancock, 5, John Dalton street, Manchester. Improvements in elastic wheel tires. June 29.  
 11,892. Adolf Herz, 45, Southampton buildings, Chancery lane, London. Improvements in elastic tires for vehicles. June 29.  
 11,908. Janet, John, and Robert Miller (executors of the late John Miller), and John Miller, 8, Quality court, Chancery lane, London. Improvements in apparatus for waterproofing fabrics, applicable for other suitable purposes. July 2.  
 12,040. Edward Neal, 1, Market place, Acton, London. Improvements in adjustable non slipping rubber horsepads. July 3.  
 12,085. Louis Brier, Norfolk House, Strand, London. Improvements in valves for tires. July 4.  
 12,143. Joseph Wilfred Bowley, 5, Lynton road, Crouch end, London. Improved apparatus for printing with rubber type. July 5.  
 12,214. John Blundell Hill, Burton House, Broadstone. The "Roundlet" tire. July 6.  
 12,216. Patrick Millar Matthew, Victoria India-rubber Mills, Edinburgh. Improvements in soles for boots and shoes. July 6.  
 12,227. Richard Rhisiart Hughes, 23, Coleman street, London. Improved method of and means for attaching tires to wheels. July 6.  
 12,304. Alfred Julius Boulton, 111, Hatton garden, London. Improvements in rubber stamps. [Paul Arthur Gasse, France.]  
 12,317. Jvergen Christian Hoachim Nielsen, 322, High Holborn, London. Improvements in cycle tires. July 7.  
 12,342. Charles John Howes, 13, Regent street, Cambridge. Improvement in nozzles of pumps for inflating pneumatic tires. July 9.  
 12,347. Edward Sherlock, Winwick, Newton-le-Willows, Lancashire. Improved cover for pneumatic tires of cycles and vehicles. July 9.  
 12,351. William Samuel Sloan, Main street, Boyle, Ireland. Improvements in air tubes of pneumatic tires for velocipedes and other vehicles. July 9.  
 12,396. Isidor Landauer, 11, Southampton buildings, Chancery lane, London. Improvements relating to pneumatic tires for preventing punctures. July 9.  
 12,403. Joseph Gilmore, 100, Wellington street, Glasgow. An improved pneumatic tire for cycles and other vehicles. July 10.

- 12,433. John Baker, 45, Southampton buildings, Chancery lane, London. Improvements in pneumatic tires. July 10.  
 12,515. Arthur Thomas Collier, 11, Southampton buildings, Chancery lane, London. Improvements relating to means for securing pneumatic tires upon rims of vehicle wheels. July 11.  
 12,574. Thomas Henry Vercoe, 19, Southampton buildings, Chancery lane, London. Improvements in pneumatic tires. July 12.  
 12,597. Frank Persia Whitaker and Earl Chandler Whitaker, 53, Chancery lane, London. Improvements in means for securing elastic tires to wheels of vehicles. July 12.  
 12,700. Herbert John Haddan, 18, Buckingham street, Strand, London. Improvements in tires for cycles and vehicles. [William Bruce Morris, Canada.] July 12.  
 12,740. John Walton, 37, Chancery lane, London. Improvements in pneumatic tires. July 13.

## American Inventions.

- 12,260. William Lloyd Wise, 46, Lincoln's Inn Fields, London. Improvements in securing the ends of retaining bands for rubber tires and in means therefor. [Calumet Tire Rubber Co., Chicago.]

## PATENTS GRANTED.—APPLICATIONS OF 1899.

- 4,662. Pneumatic Tire. Beldam, A., The Lodge, Acton, W. June 27.  
 4,675. Ventilated Waterproof Garment. Hill, C. N., 72, Watling street, London. June 27.  
 4,775. Rubber Tire. Thom, J., Glasgow. June 27.  
 4,944. Rubber Tire. Simpson, W., Godlee, F., Bodman, W. L., and Simpson, D. H., Manchester. June 27.  
 5,075. Pneumatic Toys. Makin, C., Mount Pleasant, Batley, Yorkshire. July 4.  
 5,159. India-rubber Frames for Glasses. Hubrich, M., Glogau, Germany. July 4.  
 5,378. India-rubber Horseshoe. Lemon, J. G., 33, Palace street, Buckingham gate, London, S. W. July 4.  
 5,558. Non-puncturable Pneumatic Tire. Fairhurst, E., 25, Elm grove, Paddington, Liverpool. July 4.  
 5,625. Method of Attaching Pneumatic Tire to Rim. Holland, J. W., 10, Sparsholt road, Crouch hill, London, and Anthony, A., 60, Great Hampton street, Wolverhampton, Staffordshire. July 11.  
 5,755. India-rubber Composition. Lauermann, A., Detmold, Lippe, Germany, and Gaze, H. E., 16, Hinde street, Marylebone lane, London. July 11.  
 5,993-5,995. Rubber Tire. Poizot, E., 101, Rue du Faubourg St. Denis, Paris. July 11.  
 6,322. Unvulcanized Rubber Covering for Electric Cables. Whalley, A., Helsby, near Warrington. July 18.  
 6,524. Steel and Rubber Tire. Poizot, E., 101, Rue du Faubourg St. Denis, Paris. July 18.  
 6,559. Method of Attaching Pneumatic Tire to Rim. Clayton, J. S., 1, Starkey street, Leyland, Lancashire. July 18.  
 6,904. Rubber Heel Protectors. Hammond, W., 64, Albany road, Southtown, Great Yarmouth. July 18.

## American Inventions.

- 5,189. Rubber Horseshoe. Haddan, R., 18, Buckingham street, Strand, London. [—Howe, Dayton, Ohio.] July 4.  
 5,212. India-rubber Lifts and Heels. Sefton-Jones, H., 322, High Holborn, London. [Whitcher, F. W., No. 4 High street, Boston.] July 4.  
 6,410. Self Closing Valve. Cordeau, G. E., No. 1060 Jefferson avenue, Brooklyn, and Wilson, G. F., No. 47 Great Jones street, New York. July 18.  
 6,466. Flexible Tubing. Doughty, H. J., No. 940 Broad street, Providence, Rhode Island. July 18.  
 6,638. Rubber Valve for Pneumatic Tire. Rickman, F. E., No. 4 Hancock place, New York, and Hawthorn, C. A., No. 193 Hawthorne street, Flatbush, Brooklyn. July 18.  
 6,668. Method of Attaching Pneumatic Tire. Coomber, J., and Wilson, J., Chicago, and Norton, F. L., Racine, Wisconsin. July 18.

THE London *Engineer* says: "Recently we described the German system of protecting large shafts by vulcanizing India-rubber onto the shaft. A large shaft was covered in this way last week in Newcastle-on-Tyne, and it seems probable that the use of the system will extend rapidly in Great Britain."

THE sawn timber used in Brazil for casing crude rubber is imported chiefly from the United States.

## MR. CONVERSE'S EIGHTIETH BIRTHDAY.

SO many friends and well wishers of the Hon. E. S. Converse called on him on his eightieth birthday (July 28), that all Malden may be said to have participated in the celebration, although, before the visitors began to arrive, Mr. Converse had had no intimation that the day was not to be spent quietly with his family. Mayor Charles L. Dean and several ex-mayors were among those who called to offer congratulations, together with the other members of the city government, and other citizens prominent in the business and social life of the city. There were congratulations in person or by wire or letter, likewise from several state officials, and many citizens of Boston, together with friends throughout the country, not forgetting the employés of the Boston Rubber Shoe Co. The secretary of the navy telegraphed:

Sincere congratulations on your rounding up eighty years, and every year a good one. I hope you will make it a hundred. I am sure you will, for you are a 100 per cent. man. Affectionately yours,  
JOHN D. LONG.

More than fifty floral offerings came to the house, from friends at home and abroad, including one ordered by Erasmus L. Corning, a life long friend of Mr. Converse, now in Switzerland. Another came from the employés of the shoe company, and still others, some from school children. Colonel Samuel P. Colt sent a handsome silver loving cup, and the children of Mr. Converse a silver dish decorated with eighty stars.

Dr. John Langdon Sullivan, of Malden, one of Mr. Converse's oldest friends, has written these lines:

TO E. S. C., ON ATTAINING HIS EIGHTIETH  
BIRTHDAY, JULY 28, 1900.

His birthday. In the flush of summer born,  
No glint of gold, no glamour of romance,  
Gild the low roof that grandeur eyes  
askance.

Lending a hand, in life's ungentle morn,  
To work, such work as pampered pride  
may scorn,

He bursts the iron bond of circumstance,  
Ennobling wealth as sovereign of Finance  
And saviour of the needy and forlorn.

So modest, when his gracious deeds are told,

So firm beneath his burden of fourscore,  
Our hearts refuse to own or think him old.

Christ, if there yet is healing from above,

Touch the dim eyes, give him to see once more.

God bless the good gray head that all men love!

FREDERICK L. RYDER.

THE Converse birthday reception was a very happy inspiration of Mr. Fred. L. Ryder, who for twenty years has been private secretary to Mr. E. S. Converse. Mr. Ryder is conspicuously a man of happy thought and one who does things exceedingly well. His life work has been so intermingled with that of the Boston Rubber Shoe Co. and its founder, that he may be said to be almost an integral part of both. He is a man who is hard to interview, for the reason that he talks very little about himself or his accomplishments. It is interesting to know, however, that he was born in Belfast, Maine, and, after being educated in the public schools there, finished at Graham's Adademy, Orange, N. J. In addition to the private

secretaryship which he has so well filled, Mr. Ryder is secretary of the Boston Rubber Shoe Co., and of the Bay State Rubber Co., and is the treasurer of the Easthampton Rubber Thread Co. He is also director in a number of other corporations. A man of gentle ways, he is much sought socially, and is a member of many clubs, among them being the Malden Club, of Malden; the Albany Club, Albany, N. Y.; the Exchange Club, Boston, and the Corinthian Yacht Club, Marblehead, Mass. The accompanying illustration, which is a very good likeness of Mr. Ryder, has been loaned to THE INDIA RUBBER WORLD by the Malden Mirror.

ENTERTAINED BY COLONEL COLT.

A DINNER was given on August 4, at the Squantum Club, near Providence, R. I., by Colonel Samuel P. Colt, to the directors, officers, managers, and employés of the Industrial Trust Co., of Providence—one of the most important and successful financial institutions in Rhode Island. The dinner was attended by about 160 guests. As a local journal describes

the entertainment, "while it was a banquet, the *piece de resistance* was the principal portions of a Rhode Island clambake." There were included several guests not connected with the trust company. The whole affair was informal, but short speeches were made by Lawyer William M. Ivins, of New York; Chief Justice John H. Stiness, of Rhode Island; Charles R. Flint, of New York; Judge Le Baron Colt, of the United States court, and others, and W. C. T. Wardwell, late lieutenant governor of Rhode Island, sang "The Sword of Bunker Hill." Colonel Colt being so prominent in the rubber industry, several representatives of that interest were present, of course, including Arthur L. Kelley, Samuel N. Williams, W. T. Rodenbach, A. L. Comstock, William B. Dowse, C. C. Converse, George P. Eustis, Charles A. Emerson, and Henry A. Clarke. The guests were conveyed to and from the clubhouse by steamer; they were entertained during the dinner with music; and the occasion proved a delightful one to all who were fortunate to be

present. Colonel Colt is president of the Industrial Trust Co., as well as of the Woonsocket and National India Rubber companies, and secretary of the United States Rubber Co.

## THE RUBBER PRODUCTION OF ASSAM.

ACCORDING to the Bombay *Gazette* the total quantity of rubber, which has been collected in the Assam forests during the season 1898-99 has been estimated at 3599 maunds, or 286,317 pounds, which shows an increase of 61,997 pounds over last year. The increased production was most marked in the districts of Cachar, Darrang, and Lakhimpur, and was due to the increased activity in collecting at Manipur, Dafia, Naga, and other hill districts, which again was caused by increased demand and higher prices. Although the production of crude rubber in 1898-99, exceeded that of the preceding year considerably, it did not reach the production for 1896-97, which amounted to 330,000 pounds. The reason for this is that the increased demand has caused destruction of the trees.



FREDERICK L. RYDER.



## WHERE THE GUTTA-PERCHA IS GOING.

THE recent operations in cable laying in the Atlantic point to the consumption of Gutta-percha within the past year on a scale which must have had an important bearing upon the market price of this commodity. On July 22 the cable laying steamer *Silvertown*, belonging to the India-Rubber, Gutta-percha, and Telegraph Works Co., Limited, made the final splice, off of Coney Island, near New York, in the fourth cable of the Commercial Cable Co., which extends to Fayal, one of the Azores, via Canso, Nova Scotia. The cable steamer *Faraday*, owned by Siemens Brothers & Co., Limited, also laid an important amount of this cable. At the Azores this line will connect with systems which already reach Portugal and thence extend to the far east and to the South American coast. On August 2 and 3 the president of the United States and the king of Portugal exchanged messages of congratulation on the completion of means of more direct communication between the two countries.

During this month the new German cable will be laid between Coney Island and the Azores, by the Telegraph Construction and Maintenance Co.'s steamer *Anglia*, the section between the Azores and Emden, the starting point in Germany, having been already completed. The entire cable, with a length of 4984 miles, is expected to be working in September. The German and Commercial cables will be in close touch at the Azores, under a working arrangement which will give the latter any business which the former's long stretch to New York may not be able at all times promptly to undertake. At Canso and New York the German land business will be handed over to the Postal Telegraph-Cable Co., which is connected intimately with the Commercial Cable Co. The new cable will be Germany's first direct connection with America by a submarine line.

Of no less interest, in connection with the Gutta-percha situation, is the extent to which new cable lines are being proposed. The *Deutsche Kolonialzeitung* (Berlin) publishes a list of new cable projects, requiring 60,000 miles of cables, with an estimate that the requirement of Gutta-percha will be 17,600,000 pounds, the cost of which, at 9 marks per kilogram, would equal \$17,136,000.

The British government having at length reached an understanding with the various colonies interested in an all-British Pacific cable, bids were invited during the past month for the construction of 8272 nautical miles of cable, which will involve the largest single item of cable building in the history of the industry.

The imperial director of posts and telegraphs of Germany announces that the policy of his government will be to encourage the laying of additional cables, with a view to the expansion of German transmarine trade. An expenditure of 6,000,000 marks (= \$1,500,000) by the government for this purpose is estimated during the next twenty years, in addition to private capital.

The French government has lately passed a bill for the extension of their cable, due to the interest felt in strengthening the relations between the mother country and her colonies in Africa and Asia, and this is likely to lead to considerable activity among the French firms engaged in cable building, prominent among which is the Société Industrielle des Téléphones, of Calais, the firm responsible for making and laying the Brest-New York cable last year.

It may be added that the Berlin report on new cable projects, mentioned above, includes a Pacific cable under the patronage of the United States.

A London journal—the *Outlook*—asks: "Where are tenderers for the Pacific cable to get their Gutta-percha? The Eastern Cable group have seemingly stolen one march upon the Pacific Cable committee; they have at least, so it is said, given out orders for something like 14,000 miles of cable. As a result of this and other larger orders, the price of Gutta-percha has so jumped up and the sources of production are so choked that no responsible firm is expected now to give a fixed price or a fixed time for the completion of the Pacific cable. If this be so, what becomes of the Pacific cable and, for that matter, of the foresight and business aptitude of the Pacific Cable committee?"

## THE NEW CABLE FOR CAPE NOME.

THE Pacific Coast Steamship Co.'s steamship *Orizaba* sailed from San Francisco on August 23, specially chartered to convey to St. Michael 187 miles of submarine cable built for the United States government by W. R. Brixey (Seymour, Conn., and New York). The steamer is expected to reach St. Michael by September 3, and it is estimated that the cable can be laid within three days—55 miles between St. Michael and Unalaklik and 132 miles between St. Michael and Cape Nome. George F. Porter, manager for W. R. Brixey, accompanied the expedition.—Cape Nome, the seat of the latest development in gold mining, is situated on the shore of Bering sea, at the mouth of Snake river, Seward peninsula, central western Alaska. It is, by the ocean route, 2700 miles from Seattle, Wash., whence it is reached in ten days, and as far west of Seattle as Chicago is east.

## THE GUTTA-PERCHA SUPPLY.

THE administration of the Malay state of Pahang, for 1899, points out that the Gutta-percha producing tree, *Dichopsis gutta*, known locally and at Singapore as the "getah taban merah," is the one most in need of protection. The product of this tree commands a higher price than that of any of the other half dozen or more gutta producing species, and it is particularly desirable for cable insulation. The report states that "it is a very slow growing tree, and when it has attained a girth of 3 feet, which it takes about thirty years to do, it yields about 2½ pounds of Gutta, and the collection of this involves the felling of the tree." There are few mature trees of this species left—the author of the report has never seen one—and "if these are felled and the younger trees cut down before they are old enough to bear seed, the jungle will, in a few years, become denuded of these valuable trees, and the greatest care will have to be taken to prevent this." As the planting of these trees, owing to their growth being so slow, can hardly be pursued profitably by private individuals or firms, it is suggested that the government should establish plantations.

The Nederlandsche Getahpertja Maatschappij (Netherlands Gutta-percha Co.) have been registered at The Hague, with an authorized capital of 1,500,000 florins, of which 675,000 florins have been offered for public subscription. The object is to utilize the invention of Dr. P. H. Ledebor for the extraction of Gutta-percha from dried leaves, beginning with the establishment of works for this purpose at Singapore, and also to erect works for purifying Gutta-percha, and to engage in the cultivation of Gutta-percha.

THE exports of Gutta-percha from Sarawak, in Borneo, during 1898, amounted to 499,333 pounds, and the exports of Rubber to 496,667 pounds. The British resident at Baram, in a paper read recently before the Royal Geographical Society, in London, regards the supply of Gutta-percha in Sarawak as very important.

## LITERATURE OF INDIA-RUBBER.

A SERIES of brochures issued from the "établissement horticole spécial" of Monsieur Alexandre Godefroy-Lebeuf, of Paris, though intended primarily for advertising purposes, yet contain not a little information regarding the principal rubber yielding species, stated with apparent care, and convenient in arrangement. THE INDIA RUBBER WORLD has been favored with copies of pamphlets, ranging between 12 and 20 pages each, as follows: (1) The rubber tree of Panama—*Castilleja elastica*; (2) Report on Mexican rubber to the British foreign office by Sir Henry Nevill Dering; (3) The rubber tree of Pará—*Hevea Brasiliensis*; (4) Method of intensive culture of the Pará rubber tree, based upon experiments in the far east; (5) The rubber tree of Ceará—*Manihot Glaziovii*; (6) The "Mangabeira" rubber tree—*Hancornia speciosa*; (7) The African rubber genus—*Landolphia*; (8) The rubber creepers of Africa and the exploitation of their bark; (9) Balata—*Mimusops globosa*. Several of these booklets are illustrated, and the possessor of the series will find in it a desirable compendium of information regarding the various species above enumerated.

RUBBER CULTIVATION FOR PORTO RICO. (UNITED STATES Department of Agriculture, Division of Botany. Circular No. 28.) Washington: 1900. [8vo. 8vo. 12 pp.]

THE matter contained in this circular was written as part of a report, now in preparation, on the useful plants and agricultural possibilities of Porto Rico. The separate publication of this portion is intended as a means of replying to numerous inquiries received at Washington on the subject of rubber production as an agricultural industry. The pamphlet contains in brief form much information relative to the leading rubber species which have been placed under cultivation, but its chief interest lies in its indication of the attitude of the government at Washington in regard to rubber planting. In noting some not very encouraging ventures, the "Circular" continues: "This does not mean that rubber cultivation may not become an extensive and profitable industry, which there is every reason to expect. It is desired rather to call attention to the elements of uncertainty entering into the business and to warn the public against ill advised ventures which are justified by no ascertained facts." The final conclusion reached is that "the future of rubber as a distinctly cultural industry will continue to lie in the direction of its development as contributory to the rise of mixed farming in the tropics, rather than in the organization of capital for the exploitation of a single product."

RELATORIO PRELIMINAR SOBRE A EXTRACCAO DA GOMMA ELASTICA da Mangabeira Sylvestre em S. Simao e Batataes (Estado de S. Paulo, por Adolpho Barbalho Achôa Cavalcanti, Engenheiro industrial e civil, Lente de Química e Agricultura na Escola Polytechnica de S. Paulo. São Paulo [Brazil]: 1898. [Paper. 8vo. 23 pp. 12 plates.]

A REPORT on the extent of the mangabeira rubber forests of the Brazilian state of São Paulo, prepared by order of the government, with an appendix by Pereira d'Utra, director of the Agronomical Institute of Campinas, describing the tree, its leaves, fruit, and seeds, and methods of extraction, illustrated from photographs.

## IN CURRENT PERIODICALS.

LE Caoutchouc: Histoire, ensemencement, culture et exploitation. [Translation from the Spanish and reprint of a paper on "Goma elastica" in No. 118 of *La Produccion Nacional*, of Buenos Ayres.]—*La Gazette Coloniale*, Brussels. II-25-30 (June 24-July 29, 1900.)

L'exploitation du Caoutchouc de *Castilleja* peut-elle donner des bénéfices? [Translation and reprint of a paper, "Can *Castilleja* Rubber be Cultivated Profitably," by J. C. Harvey, in THE INDIA RUBBER WORLD.]—*La Semaine Horticole*, Brussels. IV-26, 27 (July 7, 14, 1900.) pp. 309-310; 321-322.

## PROFITS OF AN ENGLISH TIRE COMPANY.

THE directors' report of the Rubber Tyre Manufacturing Co., Limited, presented at the ordinary general meeting of the company at the Grand Hotel, Birmingham, on July 30, contains matter of general interest to the rubber industry, on account of the relation of this company to the tire industry in Great Britain. The capital of the Rubber Tyre Manufacturing Co. is, nominally, £150,000; the amount issued is £120,002 (= \$600,000), divided equally into preference and ordinary shares. The directors' report follows, in full.

YOUR directors have pleasure in submitting their fourth annual report and balance sheet. The result of the year's trading, after providing for all outgoings and also maintenance and depreciation of buildings, plants, molds, tools, fixtures, etc., is a profit of £21,910 1s. 5d., to which has to be added the balance brought forward from last year's accounts, £3817 4s. 7d., making a total of £25,727 6s.

Your directors propose to deal with this sum in the following manner: To pay a dividend of 6 per cent. on the preference shares for twelve months to June 30, 1900—£3600 1s. 2d.; to pay a dividend on the ordinary shares at the rate of 7½ per cent. per annum for twelve months ending June 30, 1900—£4500 1s. 6d.; to make a special depreciation on molds, £5000; to carry to reserve fund (making said fund £25,000), £9000; to carry forward to next year's account the balance of £3627 3s. 4d.—£25,727 6s. The cost of maintenance of plants, molds, tools, fixtures, and buildings was £2195 9s. 11d., and a further sum of £2612 5s. 11d. has been reserved for depreciation of same, making a total of £4807 13s. 10d., the whole of which has been charged against revenue, as set out in the balance sheet.

Your directors have lately acquired the exclusive rights in Great Britain for patented machinery for making all kinds of pneumatic tires. It is expected that the necessary machines will be erected in time for next season's business. Your directors are of opinion that the acquisition of these patent rights places this company in a unique position in the tire manufacturing trade. The machines are automatic in action, and effect great saving in production, while turning out a superior article. The manufacture of motor tires has been receiving the attention of your directors, and it is expected a large and lucrative business will be done in this class of tires next season by your company. The patented machinery referred to in this report is equally well adapted for the production of motor tires as for cycle tires.

Your directors beg to report that the reconstruction of the share capital of the company has been completed in accordance with the resolutions passed and confirmed by the shareholders. The retiring directors are Messrs. Harvey Du Cros, Jr., and F. Warwick, who, both being eligible, offer themselves for re-election. The auditors, Messrs. Leigh Elkington, Neal & Co., also retire, and offer themselves for re-election.

Para Rubber Mills, Aston Cross, Birmingham, July 19, 1900.

THE Amazon Steam Navigation Co. have declared dividends for the last business year amounting to 5 per cent. against 4 per cent. for the three preceding years. The company are building four steamers, larger and faster than any they now own, and the condition of their business is reported to be generally good.

THE exports of India-rubber direct from Bahia, in Brazil, according to a report by the British consul, amounted in value in 1898 to £34,557, against £19,223 in 1897.

## NEWS OF THE AMERICAN RUBBER TRADE.

## DEALING IN RUBBER GOODS STOCK.

THE American Bicycle Co. has offered for sale to its stockholders 11,500 shares of the preferred and 23,000 shares of the common stock of the Rubber Goods Manufacturing Co. It is understood that this represents, in part at least, the purchase price of the Hartford Rubber Works, the Peoria Rubber and Manufacturing Co., the Indianapolis Rubber Co., and the tire business of Gormully & Jeffery, which were bought, something less than a year ago, by the Rubber Goods Manufacturing Co. from the American Bicycle Co. The terms of the offer, which was sent out on August 20, are that one share of Rubber Goods preferred and two shares of common will be sold for \$140 cash—at the rate of \$80 per share for the preferred and \$30 each for the common shares. The preferred and common will not be sold separately. All subscriptions must be received by September 4. The notice says, furthermore:

"We have an agreement with the Rubber Goods Manufacturing Co., by which they agree to pay us par for the preferred stock at any time, at their option, within two years from November 9, 1899. The preferred is a 7 per cent. dividend cumulative stock and the dividends upon it have been regularly declared and paid. The company has also declared and paid a quarterly dividend on the common stock at the rate of 4 per cent. per annum."

On the date referred to Rubber Goods common stock was sold on the curb market at  $26\frac{1}{2}\%$  @  $26\frac{1}{4}\%$ , and the preferred was quoted around 77. Earlier in the week common sold up to 29, but part of this advance was speedily lost. The New York Times reported, on August 20: "It is expected that the second quarterly dividend on the common stock will be declared in about ten days. It is believed that the dividend will amount, as did the last, to 1 per cent. The stock will thus be on a 4 per cent. basis, being one of the few common stocks of recently formed companies now traded in on the curb which have begun to pay regular dividends. Much of the stock purchased during the week seemed to be for persons closely connected with the company and who say that its earnings are excellent."

The common stock of the American Bicycle Co. has been quoted lately around  $6\frac{1}{2}\%$  and the preferred about 33. The New York Journal of Commerce quotes a member of the trade: "Before the consolidation the various constituent concerns had very large stocks on hand, but the American Bicycle Co. has now sold half a million wheels and its affairs are in good shape. The company has effected a saving of over \$90,000 in salaries and has also strengthened itself by concentrating its business in the best plants. The company is going into the automobile business and to handle this it requires more funds and it is partly for this reason, I understand, that the Rubber Goods stock is being sold."

It may be of interest to compare the present offerings of Rubber Goods by the American Bicycle Co. with the total amount of additional capital stock issued by the former upon the occasion of acquiring the rubber factories above mentioned, and some other properties, last November.

	Preferred.	Common.	Total.
Original issue.....	\$6,195,600	\$11,840,000	\$18,036,600
Later issue .....	1,424,700	3,294,600	4,719,300
Total outstanding.....	\$7,621,300	\$15,134,600	\$22,755,900
Offered by American Bicycle Co.	\$1,150,000	\$2,300,000	\$3,450,000

On August 22 was sold at auction in New York, by the assignee of Price, McCormick & Co.—a firm of brokers in liquidation—the stocks held by them at the date of their failure. There were included 614,779 shares of common stock of the Rubber Goods Manufacturing Co., and 413,585 preferred shares. These were offered in 100 share lots, and the prices realized were  $24\frac{1}{4}\%$  for common stock and  $73\frac{1}{4}\%$  and  $73\frac{1}{4}\%$  for the preferred.

## ROBINS CONVEYING BELT CO. AT PARIS.

A GRAND prize has been awarded to the above named company for their system of conveyors for heavy materials, involving the use of rubber conveying belts, of which they have three exhibits at the Paris Exposition. One exhibit appears in the palace of machinery and electricity, United States section, with two 51 centimeter conveyors in operation; another is located in the palace of mining and metallurgy, United States section, with two model conveyors with tripper in operation; and a third in the Vincennes annex, in the United States triangle, near the machinery building, with two 51 centimeter conveyors with tripper in operation.

## BUCKEYE RUBBER CO.

THE Buckeye Rubber Co., incorporated recently in New Jersey, have become qualified to do business in Ohio, by filing the necessary papers with the authorities of that state. Their principal office in Ohio will be at Akron, where a factory is being erected. W. F. Douthirt is president, and F. A. Seaman secretary and treasurer. Mr. Seaman, by the way, is secretary also of the Consolidated Rubber Tire Co. The manager at Akron will be S. S. Miller, sometime superintendent of the India Rubber Co.'s factory, and later in a similar capacity with the Goodyear Tire and Rubber Co., both of Akron. There has been filed at Akron a mortgage given by the Buckeye Rubber Co. to the Colonial Trust Co., of New York, to secure an issue of \$200,000 6 per cent. ten year bonds.

## THE RUBBER SHOE FACTORIES.

THE Byfield Rubber Co. (Bristol, R. I.) closed on August 15, with a view to devoting ten days to stock taking and inventory and repairs.—The United States Rubber Co.'s knit boot factory at Woonsocket, R. I., resumed work on August 13.—The annual shutdown of the two factories of the Boston Rubber Shoe Co. lasted from August 10 to the 29th.—The factory of the L. Candee & Co. (New Haven, Conn.) was closed on August 4, to resume immediately after Labor Day.—The "Alice" mill of the Woonsocket Rubber Co. (Woonsocket, R. I.), which was shut down during part of July, resumed on July 30, and was in full running order on August 2. The company's Millville boot mill had another brief shut down during the past month.

## CABLE FOR THE PHILIPPINES.

THE new cable for the Philippines, already mentioned in this paper as having been made by The Safety Insulated Wire and Cable Co. (New York) on an order from the United States government, will be conveyed to Manila by the United States cable ship *Burnside*—a vessel recently refitted for cable service. The loading of the cable at New York was begun on August 18. There will be other supplies for the government to be conveyed, and the *Burnside* is expected to sail about September 25, carrying the last and most approved apparatus for cable laying.



## CHARLES A. COE.

THE subject of the portrait herewith, who is the head of the firm of Charles A. Coe & Co., wholesale dealers in rubber boots and shoes, of Boston, was born in Madison, New York, in September, 1853. His family went west, in 1865, as far as Bloomington, Illinois, where, in 1871, Mr. Coe entered the employ-



ment of R. P. Smith & Co., in the wholesale boot and shoe trade. He remained in this business until the beginning of 1879, when he removed to Omaha, Nebraska, where he remained seventeen years, engaged in the wholesale boot, shoe, and rubber business. On April 1, 1896, Mr. Coe took the agency of the American Rubber

Co., for the New England states, and in handling the trade in this company's lines his firm have built up a large trade. Mr. Coe has proved himself in many ways a capable business man. He is active and enterprising, has a genial personality, and has been described as "a typical western man," although, as has been stated above, he is a native of an eastern state. Mr. Coe was one of the original members of the New England Rubber Club, and lends his cooperation to the shoe jobbers' association of New England. He is likewise certain to be heard from at the occasional reunions of the selling agents of the various brands of goods controlled by the United States Rubber Co.

## PERSONAL MENTION.

COLONEL THEODORE A. DODGE, president of the Single Tube Automobile and Bicycle Tire Co., was due to arrive in New York on August 29, after an absence of several months in Paris.

=Isaac B. Kleinert, president of the I. B. Kleinert Rubber Co. (New York), is mentioned in a press despatch from Cincinnati as having made the largest cash donation ever received by the Hebrew Union College, of that city. It was a check for \$7000, accompanied by a letter from the donor stating that it is given in honor of the memory of the late Rabbi Isaac M. Wise. Mr. Kleinert added that he had just celebrated his seventieth birthday, and that there could be no more fitting time for making the donation.

=Major Arlington U. Betts, who used to be engaged in the rubber business at Toledo, Ohio, is now engaged in the military service of the United States in the Philippines. Lately some comments on the situation out there, expressed in letters written by him to friends at home, have found their way into the newspapers.

=Robert Hotchkiss, of Naugatuck, Conn., who for some time had charge of the rubber shoe factory of the Liverpool Rubber Co., Limited, at Walton, near Liverpool, has returned to that position, after spending a year or more in the United States, sailing for Liverpool from New York on August 18.

=John S. McClurg, of Buffalo, N. Y., some time assistant superintendent of the Diamond Rubber Co. (Akron, Ohio) and

later occupying a similar position at the New Jersey Car Spring and Rubber works, sailed on August 1 for Cologne, Germany, to accept a position with the important firm of Franz Clouth, Rheinische Gummiwaarenfabrik. His first work will be to install, and later to operate, a large belt press of American manufacture.

=The employes of the druggists' sundries department of the Boston Woven Hose and Rubber Co., on the eve of the departure for Europe of A. R. Duryee, late superintendent of that department, presented him with a testimonial of their esteem in the shape of a handsome bag, well filled with traveling comforts and conveniences.

=The West Side Business Men's McKinley and Roosevelt Campaign Club, organized in New York on August 1, is composed of representatives of every important business interest on the lower west side of the city. The rubber trade is represented on the list of vice presidents by William Hillman.

=W. G. Lindsay, of the Chicago Rubber Works, spent his vacation this year in the east, including a visit to his brother, A. L. Lindsay, of the Stoughton (Mass.) Rubber Works.

## HENRY C. NORTON GOES WEST.

HENRY C. NORTON, for some years general manager of the Apsley Rubber Co. (Hudson, Mass.) and one of its stockholders and directors, has resigned his position and, with his family, re-



moved to the Pacific coast, his future home being San Francisco. Mr. Norton will take an active interest in an important rubber jobbing house, that will have stores in San Francisco, Portland, Oregon; and Seattle and Tacoma, Washington. This house will handle the mechanical rubber goods of the Boston Belting Co., and the goods

of the Apsley Rubber Co., including boots and shoes. A very interesting event in connection with Mr. Norton's good bye to Hudson, was a dinner given to Mr. Norton by leading citizens of Hudson at which was presented to him an elegant cigar case made of Italian onyx, gold trimmed, and cedar lined. On the inside was a silver plate on which was engraved the names of the donors. The employes of the Apsley rubber factory also showed their appreciation of Mr. Norton's worth by presenting him with a gold lined loving cup, and a gold mounted onyx inkstand. On the cup was engraved: "To H. C. Norton, from the Coating Department of the Apsley Rubber Company, July 31, 1900." Accompanying the former, was the note: "Best wishes from the mackintosh department of the Apsley Rubber Company." Mr. Norton had been connected with the Apsley company since 1891.

## RECREATIONS OF RUBBER WORKERS.

THE annual outing of the employes of the Cleveland Rubber Works (Cleveland, Ohio) took place on July 28, twenty railway coaches conveying the party to Silver Lake, where the day was

spent in sports, feasting, and dancing.—About 100 employes of the Hood Rubber Co. were entertained at a lawn party on the evening of July 20 at the residence of their foreman, Richard M. Pearce, at Watertown, Mass. There was a concert, followed by dancing, and during the evening Mr. Pearce's guests surprised him with a handsome present.—The third annual clambake of the employes of the Manhattan Rubber Manufacturing Co., at Passaic, N. J., was held in Dannhauer's grove on August 18.—The annual reunion of representatives of the Hartford Rubber Works Co. throughout the country began at the company's office, in Hartford, Conn., on July 30, the meeting being presided over by President Lewis D. Parker. The business prospect was discussed thoroughly, and decided to be favorable. On the next day the party took a special car for Farmington, Conn., spending the day at the Country Club, where dinner for twenty-eight was served. The afternoon was devoted to sports, including a baseball game.

#### MORE RUBBER TIRE SUITS.

THE Consolidated Rubber Tire Co. have declared their fifth quarterly dividend of  $1\frac{1}{4}$  per cent. on the preferred stock, payable September 1.—Suit has been brought against the Kokomo Rubber Co. (Kokomo, Ind.) by the Rubber Tire Wheel Co. and the Consolidated Rubber Tire Co., in the United States circuit court, alleging infringement of patents in the manufacture of solid vehicle tires.—Suit was filed in the United States circuit court at Trenton, N. J., August 16, against the Consolidated Rubber Tire Co., by the Hartford Rubber Works Co., to recover \$252,776.68, which amount is alleged to be due from the defendant for breach of contract. The contract involved was made with the Rubber Tire Wheel Co., which has since passed under the control of the Consolidated company. The plaintiffs allege that the sum sued for represents the difference between the amount of rubber tire stock supplied to the defendant, and the amount called for under the contract.—A similar suit was filed at the same time and place, against the Consolidated company, by the India-Rubber Co. (Akron, Ohio), to recover \$200,000 on a similar claim.

#### AGENTS FOR CONCORD RUBBERS.

THE eastern selling agents for the rubber boots and shoes made by the Concord Rubber Co. (Concord Junction, Mass.) are Winch Brothers, No. 130 Federal street, Boston. Full stocks are carried also by:

Powell & Campbell ..	Duane and Church streets, New York.
C. E. Smith Shoe Co. ....	Detroit, Mich.
F. Mayer Boot and Shoe Co. ....	Milwaukee, Wis.
Noyes, Norman & Co. ....	St. Joseph, Mo.
Kellogg, Johnson & Co. ....	St. Paul, Minn.
Wingo, Ellett & Crump Shoe Co. ....	Richmond, Va.
Inman, Smith & Co. ....	Atlanta, Ga.
W. J. Martinez & Brothers. ....	New Orleans, La.

The products of the new company are up to date in the matter of styles, and the demand for them is said to be encouraging.

#### GRAND PRIZE FOR SINGER SEWING MACHINES.

THE grand prize for sewing machines at the Paris Exposition has been awarded by the international jury to The Singer Manufacturing Co. for the superiority of the Singer machines in design, construction, efficiency, and for development and adaptation to every stitching process used in the factory. Only one grand prize was awarded at Paris for sewing machines from all over the world, and this distinction of merit confirms the action of the international jury at the World's Columbian Exhibition at Chicago, where Singer machines received 54 distinct awards, being more than were received by all other

kinds of sewing machines combined. This information is likely to prove of interest to India-rubber manufacturers, on account of the large number of Singer sewing machines of special design now in use in this industry.

#### GOLD MEDALS AT PARIS FOR THE ROEBLING COMPANY.

OF the three gold medals awarded to the John A. Roebling's Sons Co. (Trenton, N. J.) at the Paris Exposition, for as many separate exhibits, one relates to the display of the company's products in the electrical section. This exhibit includes all the various forms of insulated wires and cables made by the company—including applications of electricity for power purposes, lighting, and communication. The exhibit is an extensive as well as a varied one, and is attractively mounted.

#### BOSTON RUBBER SHOE EXPORTS FOR JULY.

	Pairs.	Value.	Value, 1899.
To England .....	6,840	\$3,323	\$5,020
To Germany.....	4,656	2,350	....
To Scotland.....	564	310	....
To Newfoundland.....	67	81	....
To Nova Scotia.....	24	72	1,038
To Sweden and Norway.....	....	....	381
To British Africa.....	....	....	15
Total.....	12,151	\$6,136	\$6,454

#### NEW INCORPORATIONS.

THE American Oaxaca Coffee and Rubber Co. (Dover, Del.) July 23, under Delaware laws; capital, \$504,000. Incorporators: William M. Hope, James M. Woolworth, M. Hook.

=The Palma Real Co., mentioned last month as having been incorporated in West Virginia, with headquarters at Pittsburgh, have opened a branch office at Indianapolis, Ind.

=The Electric Tire Inflator Co. (Denver, Colo.), under Colorado laws, to deal in appliances for the automatic inflation of pneumatic tires; capital, \$10,000. Incorporators: W. H. Smith, George W. Skinner, Charles H. Toil.

=The Highland Rubber Co. (Reading, Massachusetts), August 10, under New Hampshire laws; capital, \$100,000. Incorporators: J. W. Beals, Jr., Boston; P. C. Donovan, East Boston; John C. Andrews, Newton Centre, Mass.; Daniel C. McCallom, North Cambridge, Mass.; John F. McCallas, Concord, Mass.

=Chiapas Rubber Plantation Co. (Chicago), August 14, under Illinois laws; capital, \$100,000. Incorporators: C. M. Sherwood, Edward A. Morse, Charles Woodward.

=Imperial Rubber Co. (San Francisco), August 13, under California laws, to acquire and cultivate rubber lands in Mexico; capital, \$10,000,000; subscribed, \$6,025,000. Directors: Jules McKinley, San Francisco; W. W. Davis and J. A. Robinson, Oakland, Cal.; J. H. Kinley, Kansas City, Mo.

#### TRADE NEWS NOTES.

THE machinery at the factory of the new Milltown India Rubber Co. (Milltown, N. J.), at the head of which is John C. Evans, was started on August 27. It is expected that about 200 hands will be employed. The company will be managed somewhat on the coöperative plan, nearly every citizen of Milltown having subscribed to the capital stock.

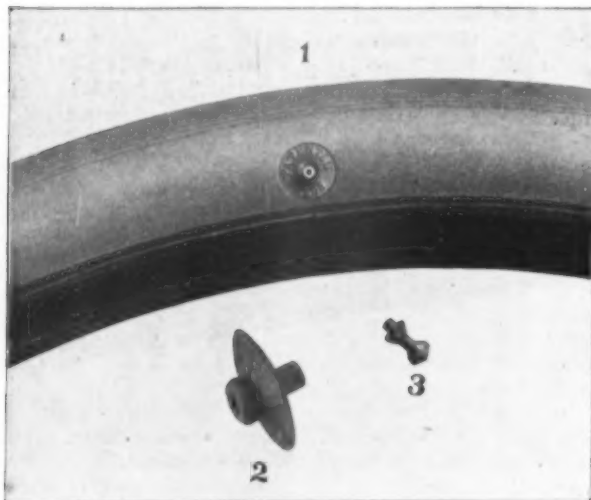
=The Alden Rubber Co. (Barberton, Ohio), who have been manufacturing the Warner detachable tire, in addition to a general line of mechanical goods, are reported to be taking on a new single tube tire for bicycles and vehicles.

=The Kokomo Rubber Co. (Kokomo, Indiana) are erecting a brick addition to their factory, two stories and basement, 50×140 feet, to be used in taking care of their increasing tire business. They are also adding some new steam boilers.

=Some new show cards of the Wales-Goodyear Shoe Co. are very attractive, especially one portraying an enormous polar bear carrying a banner advertising "Wales-Goodyear rubbers."

## PICKETT TWO PART TIRE VALVE.

THE illustration herewith gives a fair representation of a new valve for pneumatic tires just now about to be placed on the market. It embodies many features of novelty, not the least of which is the fact that it has no metal parts, but is made wholly of India-rubber. This feature is certain to commend the new valve to the interest of those who have experienced difficulty in using rubber in connection with metals. A very essential feature is that the use of this tire renders unnecessary any boring of the rim, which doubtless will prove a great consideration with the manufacturers of wood rims, which inevitably become weakened by boring. The valve consists of but two parts—a rubber disk and shoulder for reinforcing the tire, at the point of application, and the valve itself—a piece of solid rubber which fits closely into the aperture. There is no mushroom to be attached to the tire, as in the ordinary construction; no metal part to be wired into the mushroom; no wiring in of the valve; no nozzle for the pump. When in place the valve is flush with the periphery of the tire. The valve proper is about one half inch long and not more than a quarter inch in diameter. When it has once been put



in place—which can be done in a moment, with a very simple little metal tool—the valve is there to stay, since the greater the pressure from within, the tighter the valve is held. When the tire is to be inflated, the valve is compressed, by inserting another very small tool, to make room for the insertion of the pump nozzle, the withdrawal of which allows the valve to expand to its original size, completely filling the aperture in the tire. The invention has for its further objects the protection of the valve from dust, and a method of attachment whereby the injury or destruction of the tire is avoided in the event of its being stripped from the wheel rim. One thing to the advantage of the tire manufacturer is the fact that the whole valve can be made in the rubber factory and at an exceedingly low price. Another is the fact that, at very little cost, tire molds already in use probably can be modified to fit the tires produced with them for the new style valve. In the illustration Fig. 1 shows the appearance of a section of tire fitted with the valve; Fig. 2 shows the disk and shoulder designed to contain the valve; and Fig. 3 the valve itself. The inventor is Edward F. Pickett, of Buffalo, New York, who has obtained patents on his invention in the United States and the principal countries

abroad in which patents are granted. [American Pneumatic Valve Co., Buffalo, N. Y.]

## UNITED STATES RUBBER SHARES.

DURING the past month there was unusual activity in Stock Exchange transactions in United States Rubber common, which was all the more noticeable in view of the generally quiet condition of the stock market. The increased volume of trading was accompanied by an advance in prices, all of which has been attributed to the operation of a "pool." The table which follows gives a summary of trading by weekly periods during June and July, and daily since August 4.

DATES.	COMMON.			PREFERRED.		
	Sales.	High.	Low.	Sales.	High	Low.
June 2-8.....	2,075	28 $\frac{1}{4}$	25 $\frac{1}{2}$	453	97 $\frac{1}{2}$	94 $\frac{1}{2}$
June 9-15.....	1,110	26 $\frac{3}{4}$	24 $\frac{1}{2}$	710	95 $\frac{1}{4}$	94
June 16-22.....	2,817	26 $\frac{3}{4}$	25 $\frac{1}{2}$	566	97	94
June 23-29.....	2,185	25 $\frac{1}{4}$	24 $\frac{1}{2}$	555	94 $\frac{1}{2}$	92
June 30-July 6....	5,157	25 $\frac{1}{4}$	21	422	94 $\frac{1}{2}$	92
July 7-13.....	2,995	24 $\frac{1}{2}$	22 $\frac{1}{2}$	637	93 $\frac{3}{4}$	93
July 14-20.....	2,865	24 $\frac{1}{2}$	22 $\frac{1}{2}$	207	95 $\frac{1}{2}$	92
July 21-27.....	3,037	25 $\frac{1}{2}$	24 $\frac{1}{2}$	.....	.....	.....
July 28-Aug. 3....	9,762	28 $\frac{1}{4}$	24 $\frac{1}{2}$	322	96 $\frac{1}{4}$	95 $\frac{1}{2}$
August 4.....	700	26 $\frac{3}{4}$	26 $\frac{1}{4}$	.....	.....	.....
August 6.....	400	27	26 $\frac{1}{4}$	.....	.....	.....
August 7.....	12,150	30	26 $\frac{3}{4}$	100	94	94
August 8.....	11,545	30 $\frac{3}{4}$	28 $\frac{1}{2}$	.....	.....	.....
August 9.....	1,681	28 $\frac{1}{4}$	27 $\frac{1}{2}$	.....	.....	.....
August 10.....	470	28 $\frac{1}{2}$	27 $\frac{1}{2}$	.....	.....	.....
August 11.....	210	28 $\frac{1}{4}$	28 $\frac{1}{4}$	.....	.....	.....
August 13.....	3,325	30	28 $\frac{1}{2}$	300	94 $\frac{1}{2}$	94
August 14.....	1,675	30	29 $\frac{1}{4}$	.....	.....	.....
August 15.....	2,650	30 $\frac{3}{8}$	29 $\frac{1}{2}$	.....	.....	.....
August 16.....	4,330	31 $\frac{1}{2}$	30	120	95	95
August 17.....	700	31	30 $\frac{1}{2}$	100	96 $\frac{3}{4}$	96 $\frac{3}{4}$
August 18.....	100	30 $\frac{3}{4}$	30 $\frac{3}{4}$	.....	.....	.....
August 20.....	1,295	31 $\frac{1}{4}$	30 $\frac{1}{2}$	.....	.....	.....
August 21.....	510	31	30 $\frac{1}{2}$	.....	.....	.....
August 22.....	900	30 $\frac{1}{2}$	30 $\frac{1}{2}$	.....	.....	.....
August 23.....	300	30 $\frac{3}{4}$	30	.....	.....	.....
August 24.....	720	30 $\frac{1}{4}$	30 $\frac{1}{4}$	.....	.....	.....
August 25.....	529	29 $\frac{1}{2}$	29	.....	.....	.....

## RANGE FOR THE YEAR.

	Highest.	Lowest.
Common.....	44 — January 22.	21 — July 6.
Preferred.....	104 $\frac{1}{4}$ — January 3.	90 — February 27.

At one time during the month reports were current in Wall street that the United States Rubber Co. were again negotiating for the purchase of the Mishawaka Wool Boot Manufacturing Co., and that this had influenced the advance in common stock.

August 27 Rubber preferred fell off 2 $\frac{1}{4}$  points on sales of 185 shares—to 94 $\frac{1}{2}$ . No reason for the decline appeared, other than that the stock was pressing for sale, and was bid down until a buyer appeared.

## ADDITIONAL TRADE NOTES.

A PAPER in Philadelphia says: "Buy Manufactured Rubber around present prices for handsome profits soon, is the advice of those close to the management of the company. It is stated that a bull pool of no mean proportions has been formed in the stock, and that it is about ready to begin operations." This news refers to The Manufactured Rubber Co., incorporated in 1899, with \$6,000,000 capital, to make rubber substitutes.

=The Milwaukee (Wis.) Patent Puncture Proof Tire Co.,



who have been making cycle tires for two years past, are reported to be planning to manufacture motor tires on the same principle.

=Bids were opened at the quartermaster's department in Philadelphia on August 11 for 10,000 pairs of two-buckle arctic overshoes. The bidders were United States Rubber Co., New York, \$1.399 per pair; and John D. Ford, Philadelphia, representing John Wanamaker, \$1.35 per pair.

=American Chicle Co. common stock, on August 24, in the New York market, rose to 62 bid and the preferred to 78¼ bid, or about 3 points better than the last reported sale.

=Robert M. Kellogg, receiver of the P. Carter Bell Co., has filed his report in the office of the court of chancery at Jersey City, N. J., and his vouchers may be examined at the office of Corbin & Corbin, No. 243 Washington street, Jersey City, until September 4, when the receiver will apply in court for an order fixing his compensation and for distribution of the balance in his hands.

=Parker, Holmes & Co., No. 141 Federal street, Boston, are selling at wholesale the rubber footwear made by the Apsley Rubber Co. (Hudson, Mass.)

=As an indication of the possibilities in the way of a demand for motor tires, it may be mentioned that automobiles are rapidly coming into use in Chicago, where the Illinois Electrical Vehicle Transportation Co. have already 125 vehicles in use for public hire, and report that they are kept busy.

=La Favorite Rubber Manufacturing Co. (Paterson, N. J.) have been sued by the H. Charro Co., of Chicago, for alleged violation of contract. The plaintiffs claim to have been given

an exclusive right to sell the La Favorite goods in the northwest, by an agent of the defendants, John M. Sweeney. The agreement made by Sweeney was not ratified by his employers, however, on the ground that he had no authority to give exclusive control of territory. Meanwhile suit has been brought by the La Favorite company against the Chicago house for \$2000, claimed to be due for goods sold to them.

#### RUBBER GOODS DIVIDENDS.

THE directors of the Rubber Goods Manufacturing Co. on August 29 declared the regular quarterly dividend of 1¼ per cent. on the preferred shares, payable September 15, and the regular quarterly dividend of 1 per cent. on the common shares, payable October 15. Active trading in both issues followed, with a slight advance in prices.

#### "GRAND PRIX" FOR PIRELLI & CO.

THE Italian rubber manufacturing firm, Pirelli & Co. (Milan), informs THE INDIA RUBBER WORLD that they have been awarded, by the international jury of awards at the Paris Exposition the grand prize for their exhibit of insulated wires, aerial, underground, and submarine cables, in Group V-Electricity. We have received also from this house a copy of a pamphlet published by them describing their factories and products.

THE waterproof garment makers in Manchester report an improvement in business, according to the British Board of Trade *Labour Gazette*.

### REVIEW OF THE CRUDE RUBBER MARKET.

WE have again to report Pará rubber on a dollar basis, spot prices for fine new Upriver having been quoted at that figure since about the middle of the month.

There has been a steady demand from manufacturers for moderate sized parcels for immediate requirements, both in the United States and in Europe, and prices have been firm and advancing steadily. August receipts at Pará up to the 27th were only 960 tons, against 1010 tons for the full month last year and 1380 tons in 1898. Quotations at New York August 30 were:

PARÁ.		AFRICAN.	
Islands, fine, new.....95	@96	Tongues.....59	@60
Islands, fine, old.....96	@97	Sierra Leone.....72	@73
Upriver, fine, new.....100	@101	Benguella.....64	@65
Upriver, fine, old.....101	@102	Congo ball.....59	@60
Islands, coarse, new.....55	@56	Cameroon ball.....60	@61
Islands, coarse, old.....none here		Flake and lumps.....46	@47
Upriver, coarse, new.....70	@71	Accra flake.....18	@19
Upriver, coarse, old.....71	@72	Accra buttons.....61	@62
Caucho (Peruvian) sheet 54	@55	Accra strips.....64	@65
Caucho (Peruvian) strip		Lagos buttons.....59	@60
none imported now,		Lagos strips.....62	@63
Caucho (Peruvian) ball 66	@67	Liberian flake.....@	
CENTRALS.		Madagascar, pinky....@	
Esmeralda, sausage.....65	@66	Madagascar, black....@	
Guayaquil, strip.....57	@58	GUTTA-PERCHA.	
Nicaragua, scrap....64	@65	Fine grade.....1.75	
Mangabeira, sheet.....52	@53	Medium.....1.45	
EAST INDIAN.		Hard white.....1.20	
Assam.....81	@82	Lower sorts.....65	
Borneo.....35	@48	Balata.....	
Late Pará cables quote:			
Per Kilo		Per Kilo	
Islands, fine.....78	100	Upriver, fine.....88	250
Islands, coarse.....38	400	Upriver, coarse.....58	550
Exchange 10½ d.			

Mail advices from Pará, by the steamer *Maranhense*, arrived August 29, state that while the condition of the crude rubber market has been improved by the decline in exchange and by favorable reports from consuming markets, an increase in the volume of business has been prevented by the lack of supplies. Receipts of rubber at Pará for the crop season up to August 17 had been 1490 tons, against 1550 tons same time last year and 1660 tons in 1898.

The market for rubber scrap is dull at the time of issuing this paper, owing to the leading reclaimers being out of the market. Dealers, however, are holding firm at 10 cents and over for rubber shoes, in carload lots. An important sale of imported shoes to a leading reclaimer is reported at 8½ cents.

Balata is reported higher at London. Demerara sheet, fair, 2/4¼ @ 2/5½; fine thin, 2/6½; Venezuela, block, fair, 2/1. Sales of 76 packages at auction August 17.

#### UNITED STATES IMPORTS OF CRUDE RUBBER.

[FOR SEVEN MONTHS ENDING JULY 31.]

FROM—	1898.	1899.	1900.
Great Britain.....pounds	6,498,447	5,996,138	4,235,339
Germany.....	1,025,698	1,151,314	840,934
Other Europe.....	3,449,095	4,269,540	3,336,555
Central America.....	597,908	917,762	904,664
Mexico.....	91,496	254,078	256,049
West Indies.....	8,092	3,931	9,770
Brazil.....	13,996,712	19,238,096	17,801,630
Other South America.....	914,796	1,158,964	569,626
East Indies.....	261,551	585,465	380,039
Africa.....	5,531	4,103	...
Other countries.....	20,705	21,904	29,528
Total.....pounds.	26,870,121	33,601,295	28,364,134
Value.....	\$15,478,130	\$21,084,329	\$18,153,546
Value per pound.....	57.6 cents.	62.8 cents.	64. cents.

## NEW YORK RUBBER PRICES FOR JULY (NEW RUBBER.)

	1900.	1899.	1898.
Upriver, fine.....	93 @ 97	99 @ 1.02	98 @ 1.05
Upriver, coarse.....	67 @ 71	75 @ 80	80 @ 88
Islands, fine.....	87 @ 93½	95 @ 98	95½ @ 1.02
Islands, coarse.....	51 @ 54	64 @ 66	64½ @ 68
Cametá, coarse.....	54½ @ 59	64 @ 68	71 @ 75

## STATISTICS OF PARA RUBBER (METRIC TONS).

	NEW YORK.		Total	Total	Total
	Fine and Medium.	Coarse.	1900.	1899.	1898.
Stocks, June 30.....	502	101 =	603	418	162
Arrivals, July.....	194	114 =	308	371	461
Aggregating.....	696	215 =	911	789	623
Deliveries, July.....	280	133 =	413	438	568
Stocks, July 31.....	416	82 =	498	351	55

	PARÁ.			ENGLAND.		
	1900.	1899.	1898.	1900.	1899.	1898.
Stocks, June 30.....	160	350	230	1475	1000	725
Arrivals, July.....	760	1050	1110	675	220	390
Aggregating.....	920	1400	1340	2150	1220	1115
Deliveries, July.....	550	1140	1205	650	550	600
Stocks, July 31.....	370	260	135	1500	670	515

	1900.	1899.	1898.
World's supply, July 31 (excluding Caucho).....	2651	1941	1110
Para receipts, July 1 to July 31.....	760	1050	1269
Afloat from Para to United States, July 31.....	98	91	
Afloat from Para to Europe, July 31.....	155	549	
Afloat from United States to Europe, July 31.....	10		
Afloat from Europe to United States, July 31.....	20		

In regard to the financial situation, Albert B. Beers (broker in India-rubber, No. 58 William street, New York) advises us as follows:

"There has been but little change in money market conditions during August from those prevailing in July, and, while money has ruled easy for call loans, the demand for paper has been less, and rates have been a trifle firmer, ruling at 4½ @ 5 per cent. for the best rubber names and 5 @ 6 per cent. for others."

## LONDON.

JACKSON & TILL, under date of August 2 report:

	1900.	1899.	1898.
LONDON { Pará..... (English tons) .....	—	1	1
Borneo.....	140	81	97
Assam and Rangoon.....	31	47	34
Other sorts.....	486	370	368
Total.....	657	495	500
LIVERPOOL { Pará.....	1489	663	518
Other sorts.....	1499	717	451
Total, United Kingdom.....	3645	1878	1469
Total, July 1.....			
Total, June 1.....	3624	2510	1590
Total, May 1.....	3952	2129	1728
Total, April 1.....	3104	1942	1824
Total, March 1.....	1917	1784	1344

## PRICES PAID DURING JULY.

	1900.	1899.	1898.
Pará fine.....	3/9½ @ 4	4/1 @ 4/3	4/1 @ 4/4½
Negroheads, Islands.....	2/0½ @ 2/1½	—	2/8 @ 2/9½
Negroheads, scrappy.....	2/10 @ 2/10	3/2½ @ 3/3	3/3 @ 3/8
Bolivian.....	4/-	4/3 @ 4/3½	4/2 @ 4/4½

RECENT sales at auction of some of the new grades of rubber have been made at prices as follows:

Mollendo, fine.....	3/9½	New Guinea, clean ball.....	3/0½
Nyassa, ball.....	3/2	New Guinea, soft ball.....	2/6

## LIVERPOOL.

WILLIAM WRIGHT & Co. report [August 1] in regard to fine

Pará: "The market has been dull and depressed throughout the month, but at the close there is a decidedly firmer tone with more inquiry. Supplies in Pará will not be up to last year, and it is reported that August will also be a short month; should this prove to be the case, we may expect a further advance in prices. Spot sales [in July] only total 60 tons, closing with buyers of Upriver at 3s. 11½d., sellers at 4s.; buyers Islands at 3s. 10d., sellers at 3s. 10½d. A moderate business done for delivery, mostly 'bear' sales made at prices which could not be covered in at Pará, and which still remain uncovered. September-October Upriver sold at 3s. 11d. @ 4s.; October-November at 3s. 11½d., Islands at 3s. 9½d., closing with buyers at 4s. @ 3s. 10d."

J. J. Fischer & Co., Limited, reported stocks in the Liverpool market as follows:

	April 30.	May 31.	June 30.	July 31.
Pará: Fine.....	1303 tons	1097 tons	1043 tons	1030 tons
Medium.....	181 "	154 "	124 "	128 "
Negroheads.....	492 "	419 "	315 "	339 "
African.....	898 "	834 "	777 "	823 "
Peruvian.....	206 "	256 "	455 "	381 "
Mangabeira.....	96 pkgs	289 pkgs	297 pkgs	205 pkgs
Pernambuco.....	25 "	25 "	75 "	86 "
Ceará.....	1311 "	1393 "	1407 "	1557 "
Manicoba.....	646 "	597 "	847 "	396 "
Assaree.....	30 "	101 "	121 "	166 "
Mollendo.....				411 "

M<sup>r</sup>. STEWART-BROWN has withdrawn from the firm of Mark Hydes & Co., rubber merchants of Liverpool, and established a new firm in the same line, under the style of Stewart-Brown & Co., 1, York buildings, Dale street, Liverpool. Thomas Hydes, who has represented the old firm in New York for some time past, will continue to represent it, and also the new firm.

## BRITISH IMPORTS OF INDIA-RUBBER.

[JANUARY 1 TO JULY 31—OFFICIALLY REPORTED.]

	1898.	1899.	1900.
Imports..... pounds.	32,835,712	30,197,216	38,102,736
Exports.....	19,806,976	19,843,824	20,015,632
Net imports.....	13,028,736	10,353,392	18,087,104

## GUTTA-PERCHA.

	1898.	1899.	1900.
Imports..... pounds.	3,985,184	4,153,520	7,581,840
Exports.....	495,712	487,312	692,720
Net imports.....	3,489,472	3,666,208	6,889,120

## BRITISH EXPORTS OF RUBBER GOODS.

BRITISH exports of rubber manufactures for the seven months January to July, inclusive, have been as follows during the past three years:

In 1898.....	£ 752,059 = \$ 3,760,295
In 1899.....	788,010 = 3,940,050
In 1900.....	839,744 = 4,198,720

## ANTWERP.

TO THE EDITOR OF THE INDIA RUBBER WORLD: The public sales of August 17 gave the following results:

	Offered. <sup>1</sup>	Sold.
Congo sorts..... kilograms	337,574	281,118
Other sorts.....	19,025	4,519
Total.....	356,599	285,637

There was a good attendance and much of the Congo rubber found buyers. Prices were irregular, but on the average came up to the valuations. The 86 tons Upper Congo Lopori (No. 754) sold at 8.05 francs, or ½ per cent. above valuation. Most of the withdrawn lots are now obtainable at valuation. The next sale will take place about September 15. Stocks to-day, 737,309 kilograms.

Antwerp, August 18, 1900.

C. SCHMID & CO.

## ANTWERP RUBBER STATISTICS FOR JULY.

DETAILS.	1900.	1899.	1898.	1897.	1896.
Stocks, June 30..kilos	726,376	503,997	125,665	168,179	50,995
Arrivals, July.....	657,767	247,314	248,156	121,395	62,623
Aggregating.....	1,384,143	751,311	373,821	289,574	113,618
Sales in July.....	250,441	406,106	117,558	167,641	45,438
Stocks, July 31.....	1,133,702	345,205	256,263	121,933	68,180
Arrivals since Jan. 1..	3,669,230	2,096,266	1,114,211	870,637	424,539
Sales since January 1.	2,827,519	2,014,401	952,411	887,973	407,354

## ARRIVALS AT ANTWERP.

JULY 24.—By the steamer *Anversille*, from the Congo:

Bunge & Co. (Caisse Hypothécaire).....kilograms	98,383
Bunge & Co. (Société Anversoise).....	23,414
Bunge & Co. (La Djuma).....	12,292
Bunge & Co. (Soc. Lacourt).....	2,511
Bunge & Co. (Société Isanghi).....	18,307
Ch. Dethier (Belgika).....	3,500
Société Coloniale Anversoise.....	80,000
Société Coloniale Anversoise (Mag. Généraux).....	2,294
Société A B I R.—Lopori Rubber.....	39,743
M. S. Cols (Lubefu).....	2,200
M. S. Cols (Produits Végétaux).....	14,500
Sté An. pour le Commerce Colonial (Est Kwango).....	2,130
Cie. Commerciale des Colonies (La Kassaienne).....	9,441
Cie. Commerciale des Colonies (Cie. Française du Congo).....	4,000
Equatoriale Congolaise (Ikelemba) Bunge & Co....	9,052 321,767

AUG. 7.—By the steamer *Albertville*, from the Congo:

Société A B I R.....kilograms	62,641
Bunge & Co. (Caisse hypothécaire).....	20,801
Société Coloniale Anversoise (Haut Congo).....	16,714
Société Coloniale Anversoise (Lomami).....	2,405
Ch. Dethier (Belgika).....	15,980 118,541

## BORDEAUX.

OUR correspondent here writes expressing the opinion that the Bordeaux market for Caoutchouc is destined to become important, since there are located in the city some firms of a high order who are well established on the western coast of Africa, and who are already importing Caoutchouc. The tendency no doubt will be for crude rubber produced in the French colonies to seek a French market, for which reason

alone Bordeaux, being an important commercial center, may be expected to figure more largely in the future in the rubber trade, possibly following the course of Havre. Recent arrivals at Bordeaux have included good sized lots of rubber from the Soudan.

## MANGABEIRA RUBBER.

EXPORTS from Rio de Janeiro, Santos, Estancia, and Aracajú during the first quarter of 1900, and from the ports of the state of Maranhão during January and February, according to the statistical supplement of the *Brazilian Review*, amounted to:

To Great Britain.....kilos.	42,287
To France.....	6,090
To Germany.....	17,865
To United States.....	484
To Holland.....	880

Total..... 67,606

## IMPORTS FROM PARA AT NEW YORK.

August 1.—By the steamer *Hildebrand*, from Manáos and Pará:

IMPORTERS.	Fine.	Medium.	Coarse.	Caucho.	Total.
New York Commercial Co.	39,600	3,000	37,600	1,400=	81,600
Reimers & Co.....	31,400	1,800	3,100	12,300=	53,600
Crude Rubber Co.....	24,300	2,500	11,000	.....=	37,800
Albert T. Morse & Co....	.....	.....	11,400	10,800=	22,200
Otto G. Mayer & Co.....	10,000	300	1,700	.....=	12,000
Herbst Bros.....	1,900	.....	700	1,600=	4,200

Total..... 107,200 7,600 70,500 26,100= 211,400

August 13.—By the steamer *Dominic*, from Manáos and Pará:

Crude Rubber Co.....	83,200	6,500	15,200	.....=	104,900
New York Commercial Co..	42,300	4,900	9,500	.....=	56,700
Reimers & Co.....	27,500	5,700	8,100	.....=	41,300
Otto G. Mayer & Co....	11,100	700	4,600	.....=	16,400
Albert T. Morse & Co....	.....	.....	.....	4,600=	4,600

Total..... 164,100 17,800 37,400 4,600= 223,900

August 20.—By the steamer *Grangense*, from Pará:

New York Commercial Co.	48,600	4,500	26,100	2,400=	81,600
Crude Rubber Co.....	47,500	4,600	9,800	.....=	61,900
Reimers & Co.....	33,900	3,200	4,800	.....=	41,900
Albert T. Morse & Co....	11,200	800	5,900	1,000=	18,700
Otto G. Mayer & Co....	2,000	1,100	6,400	.....=	9,500
Hagemeyer & Brunn.....	1,100	.....	900	.....=	2,000

Total... 144,300 14,200 53,700 3,400= 215,600

## PARA RUBBER VIA EUROPE.

JULY 30.—By the <i>Umbria</i> =Liverpool:	POUNDS.
George A. Alden & Co. (Caucho).....	4,600
Crude Rubber Co. (Caucho).....	7,600 12,000
JULY 30.—By the <i>La Aquitaine</i> =Havre:	
A. T. Morse & Co. (Fine).....	2,500
AUG. 1.—By the <i>Oceanic</i> =Liverpool:	
George A. Alden & Co. (Coarse).....	10,000
AUG. 9.—By the <i>Teutonic</i> =Liverpool:	
Reimers & Co. (Fine).....	19,000
Otto G. Mayer & Co. (Coarse).....	9,500
George A. Alden & Co. (Coarse).....	1,000 29,500
AUG. 13.—By the <i>Etruria</i> =Liverpool:	
Otto G. Mayer & Co. (Coarse).....	11,500
AUG. 18.—By the <i>Lucania</i> =Liverpool:	
George A. Alden & Co. (Coarse).....	26,000
Crude Rubber Co. (Coarse).....	4,000
Otto G. Mayer & Co. (Caucho).....	11,000 51,000
AUG. 21.—By the <i>Friesland</i> =Antwerp:	
O. G. Mayer & Co. (Coarse).....	15,000
AUG. 22.—By the <i>Majestic</i> =Liverpool:	
Reimers & Co. (Coarse).....	11,500

## OTHER IMPORTS AT NEW YORK.

## CENTRALS.

JULY 27.—By the <i>Belleggio</i> =Bahia:	POUNDS.
J. H. Rossbach & Bros.....	21,000

JULY 28.—By the *Yucatan*=Mexico:

Jacobs & Allison.....	2,000
J. W. Wilson & Co.....	1,000
Tibbals & Blossom.....	1,000 4,000

JULY 28.—By the *Prins Willem*=Trinidad:

Thebaud Brothers.....	2,500
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JULY 30.—By the *Altai*=Greytown:

A. P. Strout.....	5,000
Andreas & Co.....	2,000
G. Amsinck & Co.....	700
London.....	700
Roldan & Van Sickle.....	600
Mecke & Co.....	300 9,300

JULY 30.—By the *Louisiana*=New Orleans:

A. T. Morse & Co.....	4,600
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JULY 31.—By the *Alliance*=Colon:

Isaac Brandon & Bros.....	2,700
Dumarest & Co.....	2,300
Hirzel, Feltman & Co.....	500
Roldan & Van Sickle.....	400 5,900

AUG. 2.—By the *Bellarden*=Bahia:

J. H. Rossbach & Bros.....	22,000
Elmenhorst & Co.....	2,000
Lawrence Johnson & Co.....	2,000 26,000

AUG. 2.—By the *Origen*=Belize:

G. Amsinck & Co.....	1,000
Eggers & Heinlein.....	1,000 2,000

AUG. 4.—By the *Graf Waldersee*=Hamburg:

Livesey & Co.....	6,700
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AUG. 4.—By the *Vigilancia*=Mexico:

E. Steiger & Co.....	500
H. Marquardt & Co.....	500
F. Probst & Co.....	500 1,500

AUG. 6.—By the *El Dorado*=New Orleans:

Albert T. Morse & Co.....	3,000
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AUG. 7.—By the *Alene*=Cartagena:

Kunhardt & Co.....	2,500
A. N. Rotholz.....	1,800
S. Samper & Co.....	1,200
D. A. De Lima & Co.....	1,000
G. Amsinck & Co.....	500
For London.....	1,000 8,000

AUG. 6.—By the *Capri*=Colon:

Flint, Eddy & Co.....	13,500
Hirzel, Feltman & Co.....	7,500
Czarnikow, McDougal & Co.....	5,000
Roldan & Van Sickle.....	3,000
Graham, Hinekey & Co.....	2,500
G. Amsinck & Co.....	2,500
Lanman & Kemp.....	1,700
F. Nieto & Co.....	1,600
Dumarest & Co.....	1,100
W. R. Grace & Co.....	800
L. Johnson & Co.....	600
Kunhardt & Co.....	400
James Hademan.....	400
Mecke & Co.....	200
Isaac Brandon & Bros.....	100 40,500

AUG. 6.—By the *Proteus*=New Orleans:

W. R. Grace & Co.....	5,000
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AUG. 7.—By the *Adna*=Colon:

G. Amsinck & Co.....	3,500
Flint, Eddy & Co.....	1,400
Lanman & Kemp.....	1,000
Kunhardt & Co.....	500
Eggers & Heinlein.....	500
Lawrence Johnson & Co.....	400
Lazard Freres.....	400
W. Loalza & Co.....	200
R. G. Barthold.....	200
A. P. Strout.....	200 8,300



AUG. 11.—By the <i>Orizaba</i> =Mexico:		
E. Steiger & Co.	2,500	
H. Marquardt & Co.	1,000	
H. W. Peabody & Co.	500	
Tibbals & Blossom	500	4,500
AUG. 13.—By the <i>El Norte</i> =New Orleans:		
W. R. Grace & Co.	3,000	
Eggers & Heinlein	1,200	4,200
AUG. 13.—By the <i>Edith May</i> =Truxillo:		
Harburger & Stack	8,000	
Eggers & Heinlein	1,500	
A. S. Lascellas & Co.	500	10,000
AUG. 14.—By the <i>Finance</i> =Colon:		
A. Santos & Co.	17,900	
G. Amsinck & Co.	3,700	
Frame, Alston & Co.	1,000	
Dumarest & Co.	1,400	
Flint, Eddy & Co.	1,100	25,700
AUG. 14.—By the <i>Adirondack</i> =Greytown:		
A. P. Strout	2,500	
G. Amsinck & Co.	500	
Kunhardt & Co.	1,000	
Hamburg	1,500	5,500
AUG. 15.—By the <i>Carib</i> =Truxillo:		
Eggers & Heinlein	8,000	
H. W. Peabody & Co.	2,500	
J. W. Wilson & Co.	500	11,000
AUG. 16.—By the <i>Herschel</i> =Bahia:		
J. H. Rossbach & Bros.	25,000	
Elmenhorst & Co.	4,500	
New York Commercial Co.	4,000	31,500
AUG. 17.—By the <i>Pennsylvania</i> =Hamburg:		
Reimers & Co.	5,500	
AUG. 20.—By the <i>Louisiana</i> =New Orleans:		
A. T. Morse & Co.	2,000	
W. R. Grace & Co.	2,000	
A. N. Rotholz	1,500	5,500
AUG. 21.—By the <i>Athos</i> =Savanna:		
J. A. Pauli & Co.	2,000	
Antwerp	4,000	6,000
AUG. 24.—By the <i>Hudson</i> =Colon:		
Isaac Brandon & Bros.	4,700	
AUG. 24.—By the <i>Pretoria</i> =Hamburg:		
Livesey & Co.	5,500	

## AFRICANS.

JULY 25.—By the <i>Westernland</i> =Antwerp:		
A. T. Morse & Co.	31,500	
JULY 25.—By the <i>Majestic</i> =Liverpool:		
Reimers & Co.	17,000	
William Wright & Co.	2,500	19,500
JULY 27.—By the <i>Patricia</i> =Hamburg:		
Reimers & Co.	22,000	
Albert T. Morse & Co.	18,000	50,000
JULY 27.—By the <i>Tartar Prince</i> =Genoa:		
George A. Alden & Co.	4,000	
JULY 28.—By the <i>Columbian</i> =Liverpool:		
Albert T. Morse & Co.	45,000	
Reimers & Co.	22,500	67,500

AUG. 1.—By the <i>Kensington</i> =Antwerp:		
Reimers & Co.	53,000	
A. T. Morse & Co.	23,500	
Joseph Cantor	20,500	97,000
AUG. 1.—By the <i>Oceanic</i> =Liverpool:		
George A. Alden & Co.	15,000	
Crude Rubber Co.	14,000	29,000
AUG. 4.—By the <i>Graf Waldersee</i> =Hamburg:		
George A. Alden & Co.	12,000	
Reimers & Co.	11,000	23,000
AUG. 4.—By the <i>Campania</i> =Liverpool:		
George A. Alden & Co.	19,000	
Crude Rubber Co.	19,000	38,000
AUG. 6.—By the <i>Borderer</i> =Lisbon:		
Otto G. Mayer & Co.	45,500	
George A. Alden & Co.	8,000	
Crude Rubber Co.	7,500	61,000
AUG. 9.—By the <i>Teutonic</i> =Liverpool:		
Crude Rubber Co.	5,000	
George A. Alden & Co.	4,500	
Livesey & Co.	8,000	14,500
AUG. 11.—By the <i>Aragonia</i> =Antwerp:		
George A. Alden & Co.	18,000	
Crude Rubber Co.	18,000	
Albert T. Morse & Co.	13,000	49,000
AUG. 12.—By the <i>Bulgaria</i> =Hamburg:		
Reimers & Co.	15,000	
AUG. 16.—By the <i>Noordland</i> =Antwerp:		
Albert T. Morse & Co.	64,000	
AUG. 13.—By the <i>Kiruna</i> =Liverpool:		
Reimers & Co.	6,500	
George A. Alden & Co.	4,500	
Crude Rubber Co.	6,000	
Livesey & Co.	3,000	21,000
AUG. 17.—By the <i>Germanic</i> =Liverpool:		
George A. Alden & Co.	3,000	
Crude Rubber Co.	2,500	5,500
AUG. 17.—By the <i>Pennsylvania</i> =Hamburg:		
Reimers & Co.	16,000	
George A. Alden & Co.	9,000	
Livesey & Co.	6,500	31,500
AUG. 18.—By the <i>Lucania</i> =Liverpool:		
George A. Alden & Co.	29,000	
Crude Rubber Co.	20,000	
Reimers & Co.	11,500	
Livesey & Co.	5,000	65,500
AUG. 18.—By the <i>Philadelphian</i> =Liverpool:		
George A. Alden & Co.	5,500	
Crude Rubber Co.	5,500	11,000
AUG. 21.—By the <i>Belgravia</i> =Hamburg:		
George A. Alden & Co.	23,000	
AUG. 21.—By the <i>Friesland</i> =Antwerp:		
George A. Alden & Co.	52,500	
Crude Rubber Co.	52,500	
Reimers & Co.	11,500	
A. T. Morse & Co.	26,000	142,500
AUG. 22.—By the <i>Majestic</i> =Liverpool:		
Reimers & Co.	12,000	
George A. Alden & Co.	10,000	
Crude Rubber Co.	10,000	32,000

## EAST INDIAN.

AUG. 4.—By the <i>Laureldene</i> =Calcutta:		
George A. Alden & Co.	18,500	
AUG. 24.—By the <i>Westburn</i> =Calcutta:		
George A. Alden & Co.	22,000	

## GUTTA-PERCHA AND BALATA.

JULY 27.—By the <i>Europe</i> =London:		
George A. Alden & Co.	2,500	
BALATA.		
AUG. 13.—By the <i>Prins Willem</i> =Paramaribo:		
F. G. Alden & Co.	1,500	

## CUSTOM HOUSE FIGURES.

## PORT OF NEW YORK—JULY.

Imports:	POUNDS.	VALUE.
India-rubber	2,329,805	\$1,300,940
Gutta-percha	8,077	1,836
Gutta-jelatong (Pontianak)	249,820	6,296
Total	2,587,502	\$1,309,072
Exports:		
India-rubber	23,482	\$20,162
Reclaimed rubber	135,865	19,610
Rubber Scrap Imported	991,279	\$61,640

## BOSTON ARRIVALS.

JULY 1.—By the <i>Sagamore</i> =Liverpool:		
Reimers & Co.—Africans	14,594	
JULY 5.—By the <i>Saxonia</i> =Liverpool:		
Reimers & Co.—Central	7,463	
JULY 9.—By the <i>Georgian</i> =Liverpool:		
Reimers & Co.—Africans	4,803	
JULY 21.—By the <i>Sachem</i> =Liverpool:		
George A. Alden & Co.—Caucho	6,170	
Crude Rubber Co.—Caucho	5,000	
Boston Rubber Shoe Co.—Caucho	30,287	41,457
JULY 26.—By the <i>Ibernia</i> =Liverpool:		
George A. Alden & Co.—Africans	11,114	
Livesey & Co.—Africans	2,892	14,006
JULY 30.—By the <i>Michigan</i> =Liverpool:		
Crude Rubber Co.—Caucho	15,112	
George A. Alden & Co.—Caucho	18,630	33,642
POUNDS. VALUE.		
Total, January	105,946	\$69,329
Total, February	100,763	65,290
Total, March	81,480	55,950
Total, April	141,398	90,007
Total, May	53,226	36,126
Total, June	39,376	22,016
Total, July	115,860	58,897
GUTTA-PERCHA.		
POUNDS. VALUE.		
JULY 17.—By the <i>Foylemore</i> =London:		
George A. Alden & Co.	2,174	

## JULY EXPORTS OF INDIA-RUBBER FROM PARA.

IN KILOGRAMS. 100 KILOGRAMS=220 POUNDS.

EXPORTERS.	UNITED STATES.					EUROPE.					TOTAL.
	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	
Cmok, Prusse & Co.	11,050	1,870	14,340	—	27,260	48,110	6,970	17,840	1,540	74,460	101,720
Frank da Costa	—	—	8,532	—	8,532	25,268	3,382	28,128	170	56,948	65,480
Adelbert H. Alden	42,823	4,435	42,930	4,316	94,504	18,640	1,250	2,960	4,537	27,387	121,891
Rudolf Ziets	1,780	830	—	—	2,610	10,802	1,680	4,418	247	17,147	19,757
The Sears Para Rubber Co.	39,610	5,780	20,030	320	65,740	—	—	—	—	—	65,740
H. A. Astlett	49	—	673	—	722	—	—	—	—	—	722
Denis Crouan & Co.	—	—	—	—	—	2,550	170	960	—	3,680	3,680
B. A. Antunes	10,140	3,838	3,760	10,022	27,760	—	—	—	—	—	27,760
Pires, Teixeira & Co.	2,238	—	579	—	2,817	—	—	—	—	—	2,817
Direct from Iquitos	—	—	—	—	—	1,968	179	41,516	15,940	59,603	59,603
Direct from Manios	41,163	11,945	11,587	14,108	78,803	44,657	10,830	23,595	26,777	105,859	184,662
Total for July	148,853	28,698	102,431	28,766	308,748	151,995	24,461	119,417	49,211	345,084	653,832
Total, January-June	2,633,971	467,106	1,603,010	471,294	5,175,381	3,050,250	636,986	1,177,656	490,236	5,355,128	10,530,509
Total for 1900	2,782,824	495,804	1,705,441	500,060	5,484,129	3,202,245	661,447	1,297,073	539,447	5,700,212	11,184,341







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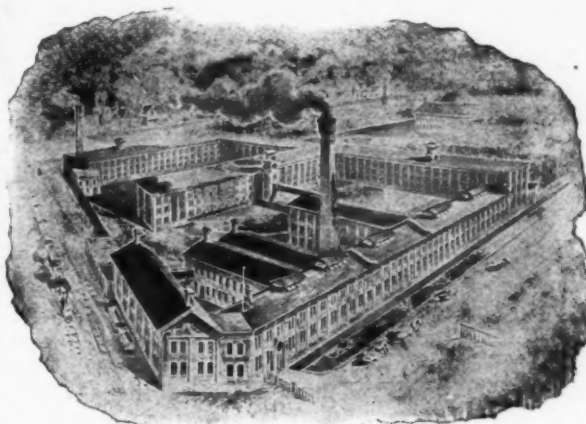


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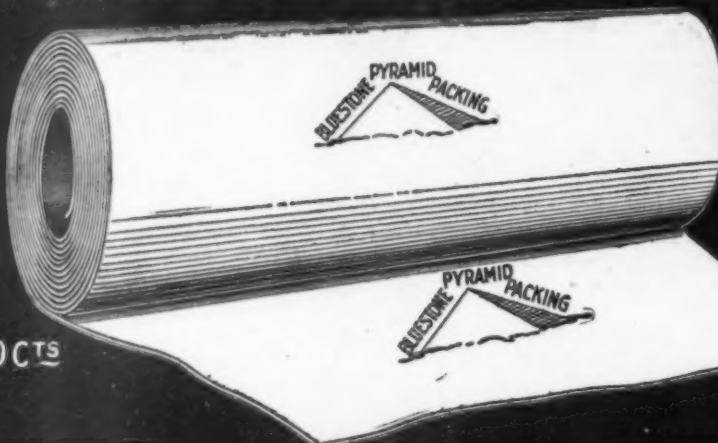
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